

# ROCKS AND MINERALS

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JULY - AUGUST, 1953  
(WHOLE NUMBER 233)

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How To Collect Minerals, 80 pages — \$1.00

## ROCKS and MINERALS

**Box 29**

**Peekskill, N. Y.**

# ROCKS and MINERALS

PETER ZODAC, Editor and Publisher

America's Oldest and Most Versatile  
Magazine for the Mineralogist, Geo-  
logist, Lapidary.

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ROCKS & MINERALS  
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# **Chips from the Quarry**

## **Young Subscriber Meets President Eisenhower**

Editor R&M:

I am 12 years old and I enjoy R&M very much. Last week I had the good fortune to be at Hanover, N. H., when President Eisenhower was there. My father is a Trustee at Dartmouth so I got a chance to meet President Eisenhower.

The morning he was going to talk we wanted to get good seats, naturally. I thought I would probably be bored waiting so I brought R&M. I saw the item about President Eisenhower being a rock

collector. I rushed back to our rooms and grabbed a nice piece of New Hampshire beryl. At the reception I got a chance to give it to him. He said he was going to put it in his penholder.

Don't worry about next year's subscription. It will be coming in soon enough;

Libby Hood,  
395 Warren St.  
Brookline, Mass.

### **Some Tips For A Young Collector**

A young subscriber wrote in recently stating that he would be making a cross-country trip this summer and requested tips and pointers on locating some minerals so as to make his trip more successful.

Our reply to him was that he should keep a diary day by day, noting mileage as well as cities, rivers, states, etc that he would see or pass through. That he should make stops at prominent rock outcrops and especially at gravel pits, mines, and quarries, and if some of the latter are being worked to call first at the offices to get permission to collect and at the same time inquire about minerals found in the workings (he may even have a few specimens given him by operators). No matter what specimens are obtained, he must label each one then and there, with its name, locality (if from mine or quarry get its name), date collected, etc., and wrap each specimen carefully.

He should have two large cardboard boxes in the car—one box full of newspapers plus some cloth bags, blank labels, cord, chisels, mineral hammer, etc., few tin boxes for holding fragile specimens are also advisable. The other and larger box should be empty and is to hold specimens collected (wrapped in newspapers).

A copy of our "How To Collect Minerals" will give him much good infor-

mation on collecting. Last but not least he should have several copies of ROCKS AND MINERALS with him whose articles might not only be a guide to good mineral localities but dealers ads would be especially helpful. He should call on as many dealers as possible—their stocks of minerals are large and extensive and—he might purchase a few choice items for his collection.

### **A Wonderful Job!**

Editor R & M:

Enclosed is a check for renewal of my subscription to the best bi-monthly available, ROCKS AND MINERALS. It's a wonderful job, every issue of it, and "rockhounds" must feel indebted to you. I want to thank you for the help you've given me in enjoying my hobby and will look for "Peter Zodac" at the masthead for many years to come.

C. W. Wright  
46 Queens Ave.  
Stratford, Conn.

June 8, 1953

### **ATTENTION SUBSCRIBERS!**

ROCKS AND MINERALS comes out once every two months as follows:

Jan. - Feb., out about .....	Feb. 10
March - April, out about .....	April 10
May - June, out about .....	June 10
July - August, out about .....	Aug. 10
Sept. - Oct., out about .....	Oct. 10
Nov. - Dec., out about .....	Dec. 10

**ROCKS AND MINERALS**



# TRIP TO COLORADO

By PETER ZODAC

Editor, Rocks and Minerals

It is always nice to go on a long trip, especially with a companion who is a real nice person—friendly, agreeable and cooperative. Such a trip was made last June to Colorado with my cousin, Royce Phillips of Washington, D. C. Royce is not a collector, is not even interested in minerals, but he is one of the nicest persons I ever went out with and—always willing to stop so I may do some collecting.

I had no intentions of going to Colorado last summer, as work had me tied down. An invitation was received from Prof. F. C. Kessler, of Canon City, Colo., requesting me to attend the big convention that was to be held in his city; his letter was so friendly and appealing that it was printed in the March-April, 1952, issue of R & M (p. 114). Royce spotted this letter in the magazine, did some quick calculating (his vacation was coming up at that time, he had a sister in Denver, etc) and so arranged a trip, inviting me to join him as he was going alone—and this is how I got to Colorado. There would be only one slight hitch, he wrote me—the trip would have to begin in Washington, D. C., and end there—but this was all right.

I left Peekskill, N. Y., Fri. June 20th, on the 10:38 A. M. train for New York City where I got the 12:30 train out of Penn Sta. for Washington. There were two incidents on the trip to Washington. In Philadelphia, Pa., just as we passed the 30th St. Sta., I noticed that this soil, where exposed, sparkled for a long distance—it must have mica flakes in it. In Wilmington, Del., a short distance passed the station, I saw in the distance and for the first time the new bridge over the Delaware River. Washington was reached about 5 P. M. That night, Myrtle (Mrs. Phillips) had a big party for some friends who were leaving for England. I was one of the invited guests and—a good time was had by all. It must have been at least 11 P.M. when the party broke up.

ROCKS AND MINERALS

**Saturday June 21, 1952**

(1st Day of Trip)

0.0 mileage at Royce's home (2625-17th St.N.E. Washington 18, D.C.) We left the house at 7:00 a.m., with Royce driving his Plymouth. The weather looked good when we started but it did not last long.

6.0 miles—Beginning of Francis Scott Key bridge over the Potomac River in Georgetown, D.C. Virginia is on the other side of the river.

6.5 miles—We turn right in Virginia on U.S. 211 and U.S. 29.

11.0 miles—Falls Church, Va.—it was now raining heavily.

31.0 miles—Deep working quarry, left of road. We did not stop to investigate it as it was raining very hard.

31.4 miles—Prince William Co. line (Virginia).

42.0 miles—Fauquier County line (Va.)

56.0 miles — Culpeper County line (Virginia).

About 200 ft. further we cross the Rappahannock River—50 ft. wide.

60.0 miles—Rappahannock Co. line on U.S. 211.

82.0 miles—Entering Shenendoah National Park. Beginning of mountains—road begins to climb.

86.0 miles — Famous Skyline Drive crossed. Page County line here. This is the apex of the ascent: We now begin to descend.

87.0 miles—Stopped to examine epidote (small greenish masses) which seemed plentiful along the road. Rain had stopped. The epidote was found in the terrain bordering the right edge of road and is believed it comes from a nearby outcrop.

89.0 miles—Better epidote along the road and lots of it.

90.0 miles — Headquarters, National Park (right) and end of Park.

95.0 miles—Luray, Va., — nice little town—county seat of Page Co.

97.0 miles—Famous Luray Caverns to right. Beautiful layout; we did not stop

to visit them as we were anxious to keep going. We were now in Shenendoah Valley—very beautiful.

105.0 miles—Lapidary & gem shop—nice stand along left edge road—did not stop as no one was around and it was raining. Later I learned it belonged to one of our subscribers—Lester Kibler. The road had been ascending Massanutten Mountain which should have given us beautiful scenery were it not for the rain.

106.0 miles—Top of Massanutten Mt.

110.0 miles—We turn left and go south on U.S. 11 in New Market. We again go through the Shenendoah Valley (the main part)—very beautiful.

113.0 miles—Endless Caverns—off to left, according to sign.

122.0 miles—Civil War Museum and Caverns (to right)—we did not stop—raining.

128.0 miles — Harrisonburg—county seat of Buckingham Co.

129.0 miles—Madison College (left) in Harrisonburg.

145.0 miles—Augusta Military Academy, a famous school for boys—to right. Very nice place.

149.0 miles—Verona—small town.

154.0 miles—Staunton, Va.—a city in western Virginia (birthplace of Woodrow Wilson). Around the northern outskirts of the city is a large prison quarry (limestone) which I visited in 1937 and collected a number of interesting specimens, but tho I strained my eyes the quarry could not be spotted. Due to the rain, we made no effort to find it.

172.0 miles—Rockbridge County line—on U.S. 11.

183.0 miles—Limestone quarry (left), did not stop as it was raining.

189.0 miles,—Famous Virginia Military Institute in Lexington (on right). Washington and Lee University here also but we could not spot it.

189.5 miles—We turn right in Lexington off U.S. 11 on U.S. 60 and go west again.

202.5 miles—We are in the mountains again (Thomas Jefferson National Forest)—went over North Mt.

206.0 miles—Alleghany Co. line on U.S. 60.

223.0 miles—Clifton Forge, Va. Good size town in the mountains (U.S. 60 and U.S. 220 join here). Altitude 1,052 feet. There used to be iron mines here and perhaps may still be in operation. Jackson River, 100 ft. wide, is here and we follow it for many miles.

234.0 miles—Covington, County seat of Alleghany Co., U.S. 220 goes to right here.

237.0 miles—Road cut to right on U.S. 60. It is all gray shale—100' long and 15' high—and we stopped to examine it. Tiny reddish brown quartz crystals in a dark brown limonite vein, in the shale, were found.

249.0 miles—West Virginia State line on U.S. 60.

254.0 miles—White Sulphur Springs, a health and pleasure resort in Greenbrier Co. Though it is surrounded by picturesque mountains in a region noted for its numerous mineral springs, the little city, itself (or what we saw of it) is not attractive. We ate here, however and got a nice meal.

256.0 miles—Large and beautiful hotel (white building) at right and on edge of town. Nice railroad station to left (opposite the hotel).

257.0 miles—Shale cut on right of U.S. 60—50 ft. long, 15 ft. high. We stopped to examine it but the only mineral seen was muscovite which was present as tiny silvery flakes in gray sandstone.

261.0 miles—Greenbrier River crossed—200 ft. wide.

264.0 miles—Lewisburg — nice town and county seat of Greenbrier Co.

276.0 miles—In our journey thru West Virginia, we noticed a number of occurrences of concentric weathering in sandstone. The first one seen was around here—in the vertical cut thru sandstone.

281.0 miles—Cemetery (left) on U.S. 60. Sign at top of gate reads—"At the end of the trail."

283.0 miles — Very good concentric weathering in red horizontally banded sandstone (on right)—did not stop.

288.0 miles—Rupert, on U.S. 60.

288.9 miles—Coal mine (working), left of road. Did not stop as it was still raining.

294.0 miles—McRoss — Lincoln coal mine here. Did not stop.

295.0 miles—Another coal mine—did not stop.

297.5 miles—Fayette County line on U.S. 60.

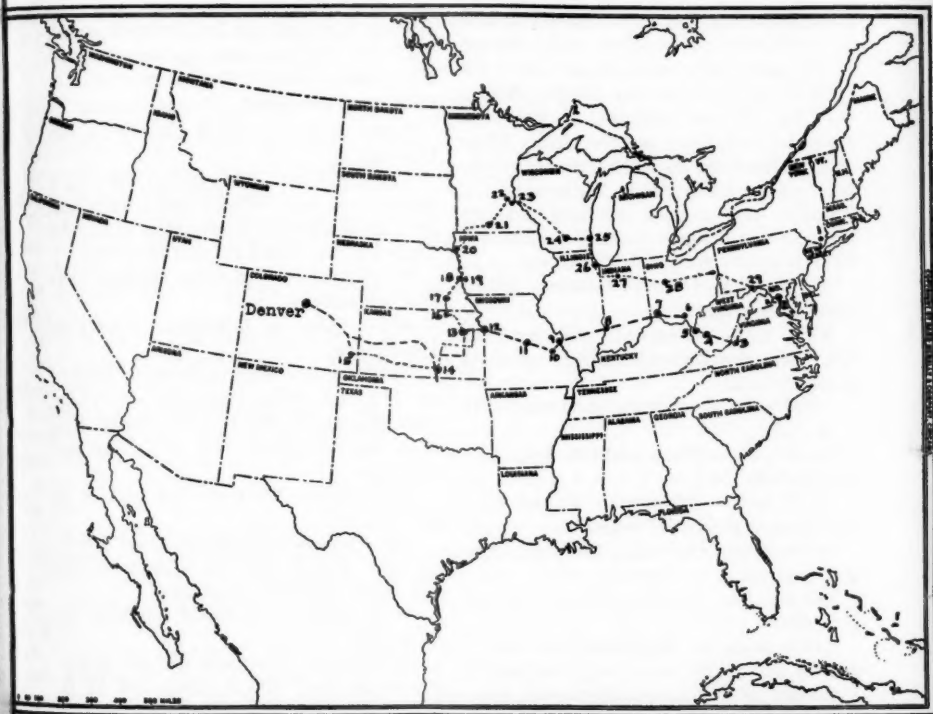
300.0 miles—Sewell Mt., 3170 ft. elevation.

310.0 miles—Coal mine, left edge

road—did not stop. All these are soft coal (bituminous) mines and such mines are not known for good minerals, hence the reason for not stopping and especially when it is raining.

324.0 miles—Ansted, on U.S. 60.

326.0 miles—Hawk's Nest State Park. Although it was raining quite heavily, we just had to stop to take in the view at left. Royce had a small umbrella and we both got under it and followed a path



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Dotted line shows route taken by the author and his companion from Washington, D.C., to Denver, Colorado, and return.

- |                       |                       |                         |                      |
|-----------------------|-----------------------|-------------------------|----------------------|
| 1. Peekskill, N. Y.   | 5. Huntington, W. Va. | 9. St. Louis, Mo.       | 12. Kansas City, Mo. |
| 2. Washington, D.C.   | 6. Portsmouth, Ohio   | 10. Meramec, Cavern     | 13. Topeka, Kansas   |
| 3. Lexington, Va.     | 7. Cincinnati, Ohio   | 11. Jefferson City, Mo. | 14. Winfield, Kans.  |
| 4. Charleston, W. Va. | 8. Vincennes, Ind.    |                         |                      |

for about 200 ft. to a lookout post from which we had a breath-taking view of New River Gorge below. The scenery was beautiful, even in the rain. Gray sandstone was the rock of the area around us. There is a good size parking space here, so on nice clear days it must be jammed with cars.

327.0 miles—Gauley Mt.—1360 feet elev.

330.0 miles—Good view of New River Gorge below—left. A small parking space is here.

332.0 miles—The road from Hawk's Nest State Park has been descending and at 332.0 we find ourselves at the bottom of the gorge; here we cross the C & O RR

333.0 miles — Gauley Bridge, Fayette Co., W. Va. on U.S. 60. In this little town the New River and the Gauley River join to form the Kanawha River, a tributary of the Ohio River. We crossed the junction over a long but new concrete bridge. A mile further, the Kanawha (to left) is a very nice and wide river.

335.0 miles—Dam in Kanawha River, scenery very nice.

336.0 miles—Long toll bridge here (to left) over the Kanawha River; we keep straight ahead.

338.0 miles — Vertical sandstone cliff—to right.

341.0 miles—Huge plant to left (Union Carbide Co.).

342.0 miles—Boomer — a small coal mining and industrial town.

342.5 miles—Harewood Colliery (large soft coal mine, to right).

344.5 miles—Kanawha County line on U.S. 60.

348.0 miles — Highway Post Office past us here. This was a large bus which I thought at first was a Greyhound bus; the first highway post office I ever saw or heard of. I guess it stops to pick up and deliver mail thru small communities.

354.0 miles—Cedar Grove Colliery—soft coal mine to right.

361.0 miles—Belle, W. Va.—huge Du Pont plant to left.

364.0 miles—Du Pont City, small.

370.0 miles—State Capitol in Charleston. West Virginia's magnificent new

capitol building is situated in the east end of Charleston facing the Kanawha River (left edge of road). Nice city and nice waterfront. (It had now stopped raining.)

375.0 miles—U.S. 60 crosses the Kanawha River which goes off to right.

386.0 miles—U.S. 60 crosses Coal River—the Kanawha River seen off to right.

389.0 miles—Coal Mt.—Elev. 914. ft. At this point is the Kanawha—Putnam Co. line. We stopped here so we could examine a small rock cut. On the Putnam side of the line I found some drusy grayish calcite crystals on iron stained grayish shale. On the Kanawha Co. side I found tiny silvery white flakes of muscovite in olive gray sandstone.

398.0 miles — Cabell County line on U.S. 60.

419.0 miles — Huntington, W. Va.'s largest city (nice town) and county seat of Cabell County. Huntington is on the Ohio but we failed to spot the river.

421.0 miles — Marshall College (left and adjacent to road).

422.0 miles — Courthouse (left) in Huntington.

431.0 miles—Kentucky State Line—on U.S. 60. Also beginning of bridge over Big Sandy River; Cutlettsburg, Ky., is at end of bridge and is a large and nice town.

432.5 miles—We turn right on U.S. 23 off U.S. 60.

435.5 miles—Ohio River, about 300 ft. to right. This is our first glimpse of this big river. C & RR. here also.

435.0 miles — Ashland, on U.S. 23. Nice city.

460.0 miles—Clay bank cut, left of U.S. 23. It is about 100 ft. long and 15 ft. high. Here we made our first stop in Kentucky and I collected some nice brown jasper pebbles.

468.0 miles—Fullerton—small town—seems to be mostly one long street.

470.0 miles—We turn right on U.S. Grant Bridge—edge of road (U.S. 23)—a toll bridge over the Ohio River.

470.7 miles—End of bridge in Portsmouth, Ohio (tollhouse here—toll 30c). We ate here at the Modern Restaurant &

Grille (good). The waitress told us of a good motel in Ripley and we decided to head for it. We took U.S. 52 at the bridge and headed westward, crossing Scioto River, via a long bridge on the western outskirts of Portsmouth.

524.0 miles—Maysville, Ky., off to left here and across the nearby Ohio River. (Free bridge here).

533.0 miles—Greenwood Motel, east outskirts of Ripley, Ohio. Here we spent the night, had cabin #3—(nice one). Rate \$4.50 for the two. We took a ride into town to look it over and when we got back our mileage was 535.0.

(Mileage for the day—535.0)

### Sunday, June 22, 1952

(2nd Day of Trip)

535.0 miles—Greenwood Motel—5:30 a.m.—in Ripley, Ohio. We always got up early so as to get a good start.

565.0 miles—Point Pleasant, Ohio — small town but birthplace of U.S. Grant (sign here).

581.0 miles—River Downs race track (left).

581.5 miles—Outskirts of Cincinnati.

591.0 miles — Post Office and Court House in Cincinnati.

610.0 miles—We cross the Great Miami River (200 ft. wide) on U.S. 50 which we picked up in Cincinnati.

614.0 miles—Indiana State Line on U.S. 50.

636.0 miles—Ripley County line.

642.0 miles—Versailles State Park.

644.0 miles—Road cut in limestone — both sides of road (U.S. 50)—100 x 40 ft. high. Got nice calcite crystals in right cut. These were groups of colorless dog-tooth crystals in cavity of coarse crystalline colorless calcite on dark gray massive limestone.

644.4 miles—Versailles city line.

682.0 miles—Seymour, Ind., on U.S. 50. Centennial celebration going on; we saw women dressed in old fashioned clothes.

718.0 miles — Bedford, Ind., County seat of Lawrence County. We were stopped at the courthouse to let Monon R.R. freight train go by—grade crossing at courthouse.

719.0 miles—Road cut (U.S. 50) in limestone on right, 100 feet long and 10 feet high. We stopped to examine it—it was dark gray oolitic limestone and void of minerals.

720.0 miles—Road goes thru big limestone cuts—both sides of road—but we did not stop—nothing seemed to be present but the limestone and it too was oolitic.

721.5 miles—White River crossed — about 100 ft. wide and a very brown color.

738.0 miles—Entrance (right) Martin State Forest.

755.0 miles—Coal mine (soft coal), 300 ft. to left. Did not stop.

758.0 miles — Montgomery, Ind., on U.S. 50.

773.0 miles—Wheatland, a small town.

776.0 miles—Coal mine (soft coal)—300 ft. right. Did not stop.

784.0 miles—Vincennes, County seat of Knox Co., on the Wabash River which here divides Indiana from Illinois.

787.0 miles—Beginning of bridge over Wabash River.

787.3 miles—Illinois State Line—center of bridge.

795.0 miles—Embarress River crossed, 150 ft. wide.

796.5 miles — Lawrenceville, Ill., on U.S. 50, county seat of Lawrence Co.

796.8 miles—While waiting for N.Y.C. R.R. freight train to go by, I jumped out to search the terrain for pebbles—best found was a nice grayish brown ferruginous quartz.

801.0 miles—Oil well (first one seen) —300 feet to right. More oil wells ½ mile further on.

862.0 miles—Collected 2 limonite pebbles from big fill over new road; fill came from nearby hill.

868.0 miles—Salem, nice town.

884.0 miles—Large and very flat terrain here—a prairie.

889.0 miles—Kaskaskia River crossed, 200 feet wide.

900.0 miles—Coal mine (soft coal), 300 feet to left. Did not stop.

948.0 miles—E. St. Louis, Ill., city limits.

952.0 miles—Beginning of Veterans Memorial Bridge over the Mississippi River. Toll 10 cents, paid on Illinois side; St. Louis, Mo., at the other end of bridge.

953.0 miles—Court House and Post Office (left) in St. Louis.

957.0 miles—Sportsman Park baseball field, left—on U.S. 50.

994.5 miles—U.S. 66 joins U.S. 50.

1001.0 miles—We keep on 66, U.S. 50 goes to right. Beginning to rain.

1019.0 miles—We turn left off U.S. 66 in Stanton for Meramec Cavern.

1022.5 miles—Park at Cavern. Here Royce and I toured the Meramec Cavern with a large group—charge \$1.50 per person. The cavern is entered through a huge natural tunnel and its entire length is level and wide with some beautiful stalactites at its far end. When we got out of the cavern at 7:10 p.m., the sun was shining and I would have liked to take the boat ride on the adjacent Meramec River (200 feet wide here). The boat ride was advertised at 50 cents per person, a boat was waiting at the dock for passengers, but we did not want to spend any more time—wanted to make Jefferson City that night.

1022.5 miles—Meramec Cavern.

1026.0 miles—We turn left on U.S. 66.

1033.0 miles—We turn right on Mo. "H" which was a dirt road.

1041.0 miles—Japan, Mo., very small.

1050.0 miles—Stopped to examine pebbles in road—road for miles on "H" had a peculiar brown color. The brown pebbles were all brown jasper.

1051.0 miles—Pit to left about 100 feet spotted after we had passed it but I didn't want Royce to stop again as he was anxious to keep going. No doubt the pebbles in the road came from this pit.

1055.0 miles—Gerald, Mo., we turn left on U.S. 50. This is end of road "H" and also end of jaspers in the road, whole length of "H" consisted of brown jaspers.

1060.0 miles—Rosebud, Mo., a nice little place.

1062.0 miles—Big gravel and clay pit 50 feet to right of road (U.S. 50). Royce

saw it first and stopped for my benefit and so I got out to look it over. It was 300 feet in diameter, 50 feet deep and not in operation. I expected to see some sand but not a sign was seen of it. The following minerals were collected: all quartz pebbles, one inch in size — red chalcedony, gray also white chert, and brown, also red jasper.

I noticed here that the shoulders of the road had brown jasper pebbles—and these pebbles continued for many miles.

1079.0 miles—Mt. Sterling, Mo. On the western limits of this little town is the Gasconde River, 200 feet wide.

1080.0 miles—Osage County line on U.S. 50.

1080.5 miles—Saw deer here—jumped a fence. This is the first and only deer I ever saw outside of my own New York State.

1082.0 miles—Useful, Mo., — very small.

1087.0 miles—Limestone cut, both sides of road (U.S. 50). The cut is 200 feet long and 15 feet high. We got out to examine it and found nice white chert masses in the limestone.

1092.0 miles—Linn, on U.S. 50.

1103.0 miles—Beginning of bridge over Osage River (about 500 feet wide)—also Cole County line—on U.S. 50.

1115.0 miles—State Capitol in Jefferson City. The Capitol overlooks the Missouri River—we got out to more admire the beautiful view.

1117.0 miles—Veitz Motel in Jefferson City. Got cabin #8—very nice. (The operator of the cabins told me that the pebbles in the driveway (all nice brown jaspers) came from the Osage River about 15 miles south of U.S. 50).

Mileage for the day—582

**Monday, June 23, 1952**

(3rd Day of Trip)

1117.0 miles—Veitz Motel, 5:00 a.m. I collected some nice brown jaspers from the driveway—the road was strewn with them.

1133.0 miles—Missouri Pacific Streamliner went by for Jefferson City—100 feet to right. For miles the shoulders of the road we were traversing were strewn with brown jaspers.



1139.0 miles—California, Mo., on U.S. 50.

1143.0 miles—We stopped so I could examine a little limestone outcrop, right side of road. Found a nice oolitic gray chert.

1156.0 miles—Syracuse, Mo., a small town.

1207.0 miles—Warrensburg, Mo. Got gas and ate breakfast here. Also collected a nice gray limestone pebble.

1261.0 miles—Kansas City, Mo. We stopped at the main Post Office as I wanted to call up a subscriber, Mrs. John McCarty, who had been supplying R & M with many interesting items. I didn't have her address but thought it would be easy to find her in the telephone directory. To my amazement there were 8 or possibly 10 John McCartys listed which so upset me that I didn't attempt to call even one of them. I rushed back to the car hoping to find her address quickly but it just could not be found. We had stopped in a restricted area and as we did not want to get a ticket, we kept on with me still searching for the address. I never did find it and later on returning to Peekskill and in corresponding with Mrs. McCarty learned that the very first name in the directory was hers—the other John McCartys are not related and she didn't know even one of them.

Before we left Kansas City, Royce took me to a lookout point in the city from which a very good view was had of the Missouri River, the airport and Kansas City, Kans.

1271.0 miles—Beginning of a long bridge part of which goes over the Kansas River; Kansas City (Kans.) on opposite end. We are on U.S. 40.

1272.0 miles—Kansas City, Kansas.

1307.0 miles—Douglas County line, Kans. Straight ahead about 5 miles was a high hill on which were perched some buildings—"the University of Kansas, in Lawrence," said Royce. Our road missed Lawrence by a mile or so.

1314.0 miles—Jefferson County line on U.S. 40.

1318.0 miles—Hamm limestone quarry, about 500 feet to right. For some reason we did not stop.

1322.0 miles—Perry, Kansas.

1322.5 miles—Delaware River crossed—200 feet wide. I never knew there was another Delaware River in the country, until I saw this one.

1339.0 miles—Long bridge over Kansas River, 500 feet wide, in Topeka.

1341.0 miles—State Capitol (nice limestone building) in Topeka, Kans. In the city we turned left on U.S. 75 and headed south.

1372.0 miles—Lyndon, County seat of Osage County.

1374.0 miles—Small limestone outcrop (containing fusulinas) on right. It was 100 feet long, 8 feet high. This was a dark grayish fine crystalline limestone containing tiny gray fusulina fossils. Incidentally this was the first time I had ever found this type of fossil in the field.

1377.0 miles—Nice rolling prairie.

1402.0 miles—Long bridge over Neosho River, 200 feet wide.

1418.0 miles—Oil well, 200 feet to left. First one seen in Kansas but I was to see many many more.

1426.0 miles—Yates Center, the hay capital of the world. We stopped for lunch here (Puritan Cafe). The city is the county seat of Woodson County. We took U.S. 54 out of here.

1430.0 miles—Limestone outcrop, both sides of road (100 feet long, 6 feet high). Here we found small drusy amber-colored calcite crystals on fine grained brownish limestone.

1434.0 miles—Oil well 300 feet to left, on prairie.

1440.0 miles—Greenwood County line.

1441.0 miles—Long bridge over Verdigris River, 100 feet wide.

1459.0 miles—Eureka, County seat of Greenwood Co. Home of Utopia College.

1460.5 miles—Fall River, 200 ft. wide, flows along the western edge of Eureka. We stopped at the west bank, at the bridge which crosses it, hoping to get some sand—no sand was seen but I did get some brown jasper pebbles.

1463.0 miles—5 Oil wells seen about 500 feet to left.

1464.0 miles—Huge prairie for miles around in all directions. This huge treeless plain was almost flat (slightly roll-

ing) but here and there limestone and clay could be seen—in small road cuts, little depressions, etc.

1472.0 miles—Many oil wells here—all around on the huge prairie.

1473.0 miles—Butler County line on U.S. 54.

1487.0 miles—Grayish, fine grained limestone outcrop, both sides of road, about 200 feet long and 4 feet high. Because outcropping on the prairie, I call it "prairie" limestone in my notes. Limestone outcrops on the prairie itself but practically at surface only; small dried up gullies in prairie are all in clay.

1491.0 miles—Walnut River, 100 feet wide in El Dorado, County seat of Butler County. We take U.S. 77 here.

1495.0 miles—Many oil wells all around.

1503.0 miles—Many oil wells all around.

1541.0 miles—Winfield, Kans. Here lives Royce's mother who would join us tomorrow on the trip to Denver. After a few minutes spent with his mother, a fine person, Royce and I headed for Hotel LaGonda where I was to make reservations for the night. In Winfield we had a subscriber, Mr. George Emrich, 210 Massachusetts (2 blocks from Royce's mother's home) and we stopped, hoping to see him. Mrs. Emrich only was at home and I went away saying I would contact him later. When we reached the hotel, there was Mr. Emrich awaiting us—I was most pleasantly surprised to see him. I had no idea Mrs. Emrich even caught my name. Mr. Emrich turned out to be the nicest person—friendly, agreeable, and an active mineral collector—so that it was a real pleasure to meet him. Royce suggested that we ride down to nearby Oklahoma which would give me a chance to collect some sand from the Arkansas River and invited Mr. Emrich to go with us—and he did. It was a very pleasant trip and I enjoyed every minute of it. (Mr. Emrich now resides at 1307 Central, Dodge City, Kans.)

1558.0 miles—Arkansas City—a nice town on U.S. 77.

1561.0 miles—Arkansas River—about

1000 feet wide. We would stop on the way back.

1564.0 miles—Oklahoma State line on U.S. 77.

1566.0 miles—Chilocco, Okla., on U.S. 77.

1567.0 miles—We turn around. In the terrain, a few hundred feet left of U.S. 77, we collected some brown jasper pebbles.

1570.0 miles—Kansas-Oklahoma line again on U.S. 77.

1573.0 miles—Park at Arkansas River, on U.S. 77. Along the southern bank of the river, which here flows easterly, is a sand bar about 500 feet wide and at least 1000 feet long. I never before saw so much sand in a river and I got a nice sample. Near the bridge, perhaps 75 feet to the west, is a limestone outcrop 50 feet wide.

1577.0 miles—We turn right on a dirt road in Arkansas City at the golf course where Mr. Emrich had in the past found some interesting small geodes. We could not find the right spot, though we did find some poor specimens.

1593.0 miles—Winfield again. Mr. Emrich insisted that I go on to his home, have dinner with the family, inspect his collection, etc. — I wasn't too hard to persuade. I went and had the most enjoyable time. Mrs. Emrich is a lovely person, their daughter Anne, a sweet thing of about 14, was very friendly, the dinner was delicious and when later Mr. Emrich and I retired to his "museum," I was in all my glory. Mr. Emrich has a very nice collection of Kansas minerals and these so intrigued me that I honestly can't say if he has any "foreign" minerals or not; he has also many sands and fossils from Kansas which all added to my interest. It was 10:30 p.m. when they all brought me back to the hotel.

Hotel LaGonda in Winfield is a nice place. I had a very good room (#203) which cost me only \$3.50 for the night.

Mileage for the day—476.0

**Tuesday, June 24, 1952**

(4th Day of Trip)

1601.0 miles—Hotel LaGonda in Winfield (Royce must have taken a short trip last night—hence the high mileage. We

started 5:00 a.m. with his mother in the front seat and headed northerly for Wichita.

1662.0 miles—Wichita on U.S. 81.

1693.0 miles—McPherson County line; saw another Highway Post Office whiz by.

1702.0 miles—McPherson. From here we head westerly for the little town of Brownell—mostly over country roads—which Royce's mother wanted to visit.

1763.0 miles—Great Bend on Kansas 96.

1782.0 miles—Shallow excavation, 50 feet to right of Kansas 96—100x100 feet in area—flat bedded buff colored limestone containing small fossil shells.

1795.0 miles—Rush Center on Kas. 96.

1834.0 miles—Brownell, Kans., a very small town. Lot of brown jaspers here in the terrain. We were here about an hour.

1843.0 miles—We turn left on U.S. 283.

1856.0 miles—Ness City on U.S. 283. Had lunch here. I got a limestone pebble. We take Kansas 96 and headed westward.

1890.0 miles—Dighton on Kansas 96. Ride westerly from Dighton through huge prairie, no trees visible for miles. In fact the prairie extends up to Chivington, Colo., and then semi-desert for miles.

1951.0 miles—Greeley County line on Kansas 96.

1956.0 miles—Collected sand from flat area to right (little sandy ridges).

1961.0 miles—Tribune, Kans., on Kansas 96.

1977.0 miles—Colorado State line on Kans. 96 which here becomes Colo. 96.

2005.0 miles—Chivington, Colo., on Colo. 96.

2011.0 miles—We stopped so I could collect some desert sand from a gopher hole right edge of Colo. 96.

2019.0 miles—Eads, Colo., we turn right on U.S. 287.

2029.0 miles—Cheyenne County line on U.S. 287. Dry Creek here—dry as a bone.

2040.0 miles—Kit Carson; we turn left on U.S. 40.

2054.0 miles—Wild Horse, Colo. on U.S. 40. From Chivington to Wild Horse, all semi-desert, past Wild Horse all grazing land.

2101.0 miles—U.S. 24 joins here.

2103.0 miles—Limon, Lincoln Co., Colo. (sign here—86 M. to Denver).

2105.0 miles—U.S. 24 goes to left for Colorado Springs; U.S. 40 and 287 go straight ahead for Denver. About 300 feet to left (on U.S. 24) is a concrete bridge over Big Sand Creek and we headed for it so I could collect a sample of sand. In about the center of the bridge is the Elbert-Lincoln County line.

The creek was bone dry—not a drop of water could be seen but it was full of sand—the entire width (150 feet) and as far as I could see—up or down—all sand. I got a sample of sand from the south side (Elbert Co.) and another from the north side (Lincoln Co.), the north side had hundreds of little ant hills—imagine ant hills in the bed of a stream!

2126.0 miles—Agate, Colo., on U.S. 40 and U.S. 287.

2189.0 miles—Aurora, Colo., a suburb of Denver. This was our destination for the day as here on 2400 Niagara lives Royce's sister Maravene, her husband, Roy Clark, and their two daughters, Pamela (2 years) and Patty Lou (9 years).

Royce was going to spend the night at his sister's while I would go on to the City proper and get a room at a hotel but—every hotel we contacted was filled up (General Eisenhower was in the city and he and his friends filled the hotels to overflowing). There were a number of nice looking motels in Aurora and they too were filled up or said they were when I asked for a cabin for one. "The next place we come to say it's for two, and maybe they will let you have a cabin," suggested Royce. I did this and got the last cabin vacant, at Colfax Motor Court (cabin #4, \$6.00 for the night). It was a nice place. After washing up, Royce and I headed back for the Clark's home on Niagara Street where we had a very fine dinner.

It was hot today, driving through Kansas, so hot that it was more comfortable to drive with the windows closed than to have them opened. When the windows were open, the very hot air would dash in as if from a blowtorch. What a relief

it was when we hit Colorado and started climbing up into the mountains!

2199.0 miles—Colfax Motor Court.

Mileage for the day—598.0

(To Be Continued)

## THE EAST WILL DIG FOR TREASURE!

Conventions come and conventions go, but leave it to the Eastern Federation to top theirs off with a field trip just different enough to have rockhounds jumping with anticipation! Last year this ingenious group dreamed up a steam shovel at Franklin. This year the Easterners have out-done themselves and the 1953 twist will be a treasure hunt.

By popular demand of the 1500 enthusiasts who were on hand a year ago the field trip again will be held at Franklin. But this time, — the date is October 11th — people instead of a steam shovel will be digging. They will be hunting for real treasure, to rockhounds anyway, a good Franklin specimen or a little box containing a ticket which may be redeemed for one. Several such boxes will be hidden or buried on the Buckwheat Dump for the occasion.

As the complex Franklin minerals are sometimes difficult for strangers to identify, visitors will be assisted in this task by the Nutley Mineral Club who will conduct an identification service through-

out the day. This society has built an enviable reputation for its knowledge of Franklin minerals and is one of the few which boasts a nearly complete Franklin collection.

During the three days prior to the field trip, October 8-9-10, convention activities will be centered at the Alexander Hamilton Hotel in Paterson, New Jersey, where two ballrooms and a third large adjoining hall will house dealer and club exhibits. Convention Chairman E. J. Talamini and a committee drawn from the five affiliated New Jersey societies have planned a well rounded Gem and Mineral Show which promises to surpass the outstanding success of the 1952 convention. The five participating New Jersey societies are Nutley, Flemington, North Jersey (Paterson), Newark Mineralogical and Newark Lapidary.

Eastern Federation President William B. Aitken cordially invites all mineral and lapidary hobbyists to be present during the convention and to join the Franklin treasure hunt.

### R & M Has Always Been Good!

Editor R & M:

Being a free country, a reader has a right to make a complaint—of course nobody is going to give a hoot. Mrs. Sinkankas expressed my opinion nicely. I think your magazine, inside and out, is better than ever—and it has always been good.

Enclosed is my renewal.

Harold Poole  
315 Wadsworth Ave.  
Philadelphia 19, Pa.

May 27, 1953

### Snake Pit Wated!

Editor R & M:

Your sand column is interesting and I have samples from several points on the coast between Boston, Mass., and Camden, Maine, ready for mailing.

If I should, by sheer accident, find myself close enough to a snake pit to snatch up some sand, you shall have it!

Mrs. Olive E. Looney  
Lincolnton, Maine

May 14, 1953

## SOME RECENT FRANKLIN, NEW JERSEY, MINERALS

By BEVAN FRENCH

98 Alexander Avenue, Nutley 10, New Jersey

The amazing quality and quantity of minerals that have come from the zinc mines at Franklin, in northern New Jersey, have served to make this locality a byword among mineral collectors. Franklin is a locality that follows no set rules and whose minerals include the strangest and rarest in the world. Thirty of the minerals found there are known nowhere else in the world, and, what is even more amazing, two of the primary ore minerals are numbered among this thirty.

The Bible of a Franklin mineral collector is Professor Charles Palache's "The Minerals of Franklin and Sterling Hill, Sussex County, New Jersey." Published in 1935, as Professional Paper 180 of the U.S. Geological Survey, it represented a compilation of all the 148 minerals of Franklin and Sterling Hill known at that time.

But, inasmuch as time marches on, new minerals, additions to the already long list, have been found. I am not a professional, but some of these finds have, in the course of my collecting, come to my attention. While I realize that there are others more qualified and prepared for a job of the type than I, I would, nevertheless, like to set down the ones which I have heard of for the readers of ROCKS AND MINERALS. I have been told recently that Harvard plans to bring out a supplement of Professor Palache's book, a supplement which, I am sure, will be avidly welcomed by all rockhounds. It will be more complete and comprehensive than this article, but, nonetheless, what I am writing here may be considered as a faltering step in that direction.

The first problem that presents itself to the author of a work of this type is how to arrange it. There are positive identifications for only a comparative few of the minerals that will be listed here, and it has not been decided just where the others fit into Dana's System; no doubt that will come later.

I will begin by listing the positive

identifications first, according to Dana, and then I will follow with the ones for which that I could not secure confirmation.

*Native arsenic:* Palache (4) in THE AMERICAN MINERALOGIST stated that native arsenic in a few grains and crystals had been found at the Sterling Hill workings at Ogdensburg. (Ogdensburg is about two miles south of Franklin, and there similar deposits are encountered, so that when one speaks of Franklin minerals, he means the two localities taken together.) Associated with the arsenic, the crystals of which were measured, were stubby prismatic crystals of realgar, the sulfide of arsenic, both minerals being hitherto unknown at Franklin. The crystals of realgar were not measured. Associated with both the realgar and arsenic were tiny needles of an unknown antimony compound.

*Realgar:* Prismatic crystals of this mineral were found associated with the native arsenic described in the preceding paragraph.

*Spinel group:* Microscopic octahedral crystals of what may be described either as a chromium-rich spinel or as a zinc chromite were found recently at Sterling Hill. The octahedrons were tiny and visible only under a microscope. Their color was a dark brown.

*Brookite:* Readers of ROCKS AND MINERALS will have to go back no further than the 25th Anniversary Issue, September-October, 1951, for all the necessary information on this occurrence of brookite. The article is "Brookite Crystals from Franklin, New Jersey," and was written by the late Samuel G. Gordon. The brookite crystals occurred in the dolomite limestone so familiar to those who seek Franklin micro-mounts. They were coal-black and about two millimeters long. The crystals showed no new forms for brookite. The dolomite limestone is

grayish and granular and the crystals were found in tiny vugs associated with sphalerite, pyrite, calcite, albite, orthoclase, calamine, quartz, millerite, and apatite.

**Wollastonite:** This mineral is perhaps the most widely-known of the recent Franklin minerals, the notoriety being due to its vivid orange fluorescence which makes it a prize in any collection of fluoreseents. The mineral was found in quantity about five years ago, and is associated with calcite and grains of brown garnet. The wollastonite occurs as large grains with a darker gray color than the surrounding calcite, and is easily detected by its vivid fluorescence.

**Garnet group:** Although andradite in its variety of polyadelphite has been noted at Franklin for years, other types of garnet have been found more recently. These are grossularite and spessartite. The grossularite was found as a massive pink variety.

**Pyrosmalite:** I am indebted to employees of the New Jersey Zinc Company at Franklin for the information on the occurrence of this mineral there. Pyrosmalite was previously known only from Vermland, Sweden, and it is another in the chain of minerals known from both localities. It is a silicate mineral related to friedelite, and the material from Franklin contained large amounts of manganese. The color was a dark brown to black.

**Mica group:** Members of the group of mica minerals already known from Franklin are muscovite, phlogopite, biotite, and caswellite, the alteration product of biotite. Two new members, mariposite, and fuchsite, were found in recent years. Mariposite is a chromium-rich muscovite type which was found at Sterling Hill, Ogdensburg, in greenish plates associated with small crystals of rutile and grains of red corundum. Fuchsite was found at Franklin in a matrix of garnet and biotite, and showed the characteristic green color.

**Yeatmanite:** In an article in the August 1938 issue of THE AMERICAN MINERA-

LOGIST, Charles Palache, Harry Berman, and L. H. Bauer (5) described the occurrence of a new silicate mineral which was named yeatmanite in honor of Pope Yeatman, a distinguished mining engineer who was associated with the mining and milling operations at Franklin. The mineral was new to science, and was associated with another new Franklin mineral, *sarkinite*, previously known only from Sweden.

The two minerals were found in one specimen of massive ore, forming a vein in green willemite. The yeatmanite was found as clove-brown, triclinic plates with a light-brown streak. Its hardness was determined as 4.0 and its specific gravity as about 5.02. The formula,  $(\text{MnZn})_{10}\text{Sb}_2\text{Si}_4\text{O}_{29}$ , is interesting in that it shows the first mineral containing antimony to be identified from Franklin. The sarkinite, an arsenate of manganese, showed no crystals, and was of a lovely pink color.

**Erythrite:** For this information, I am grateful to John S. Albanese, of Union, New Jersey, who saw a specimen in the John Niemuth collection containing this mineral. The specimen was of ordinary massive ore, which had a few minute rosettes of erythrite. The specimen was a very recent find, from somewhere around 1947.

**Roweite:** This new mineral, named after George Rowe, a mine captain from 1906 to 1937, was collected by him several years previous to 1937, when it was identified as a new species, and was preserved by him as an unidentified item. The specimen showed light-brown lath-shaped crystals with a narrow veinlet of pure roweite with attached franklinite-willemite-zincite massive ore. The hardness of the mineral is about 5.0 and the specific gravity 2.92. Roweite's formula is  $\text{H}_8(\text{MnMgZn})_4\text{Ca}_4\text{B}_8\text{O}_{12}$ . It is a borate mineral, related to sussexite, another mineral peculiar to Franklin. The name roweite was given to it in honor of Mr. Rowe by the late Harry Berman and F. A. Gonyer in their article (1) which first described this new mineral.



*Anhydrite, crystal casts:* Anhydrite has been seen at Franklin in massive form, but the occurrence of anhydrite crystal casts in serpentine is sufficiently novel to warrant listing here. The casts, in a serpentine vein in ore, were similar, although much smaller than, the crystal cavities so familiar around the trap rock zeolite region.

The specimen showing these casts was found recently by Mr. Albanese. It had lain on the Buckwheat Dumps at Franklin for perhaps fifty years and had been missed by perhaps a thousand collectors. Mr. Albanese recognized the cavities in the serpentine vein, although they were very minute. The cavities were identified under the microscope as having been formerly occupied by anhydrite crystals. Because of its mineralogical interest, the specimen was donated by Mr. Albanese to Harvard University, which already has one of the best Franklin collections.

This specimen concluded the list of confirmed minerals. The ones following were in specimens seen in various collections, but about which no definite data could be obtained.

In the Rowe Collection at Harvard University were seen the following: *Pyrophyllite*, a pinkish earthy coating on a calcite-garnet matrix; *psilomelane*, as black rosettes on green granular willemitite; *pyrolusite*, as blue-black needles in and with earthy limonite (limonite has been associated with the copper carbonates azurite and aurichalcite from Franklin); *covellite*, massive blue with quartz and garnet; and *annabergite*, on chloanthite-nicolite ore. (This last may be a mistake for desautelsite, which has been found with the aforementioned nickel ores at Franklin.)

In the collection of the American Museum of Natural History in New York City, the following specimens were displayed: *Native gold*, as yellow spangles on a calcite gangue, from the F. I. Allen Memorial; and *Clinobumite*, yellowish tan material associated with franklinite.

A specimen given to me by the New Jersey Zinc Company was *natrolite*, and a specimen that I was shown consisted of

black *hortonolite*, this last a silicate of iron.

To paraphrase a recent moving picture, one might say that this is the end of the beginning. My list here is completed, proving that an old locality can teach collectors new tricks. Although the mines at Franklin are almost through, and the pillars are being shot out even as I write this, there are still many hundreds of specimens from Franklin that await identification and that possibly, even probably, contain species as yet unlisted from Franklin. It is entirely possible that there is good reason to believe that in the next decade the number of Franklin minerals will exceed three hundred. It will be a fitting climax to this old locality which has been for so many years an unequalled rockhound's paradise.

I am grateful to the employees of the New Jersey Zinc Company at Franklin for their gracious assistance in gathering material, and to Mr. John S. Albanese for more information and his careful and critical reading of my manuscript. Also, to Alan Kaye-Martin for helping me dig material out of the back files room in the New York Public Library.

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## A MID-WINTER'S COLLECTING TRIP

By A. W. PORTER

Past President, Humboldt Gem and Mineral Society  
Pepperwood, California

A winter trip, after material to be found only during and after heavy winter storms, cannot be taken in fair weather. On the Oregon coast, at Taft, there is a place on the beach where the mineral Natrolite can be found. These semi-polished specimens are brought out of the ocean and then deposited on the beach by the winter storms, to be gathered by the "rock hound" that has the courage and spirit to endure the weather conditions that exist at that time of the year.

We, three, left Eureka, California, on February 1, in two cars, Mr. and Mrs. Glen Nash, of Eureka, and yours truly. We knew that we were facing uncertain conditions as we started out on the heels of the worst storm in over 60 years. This storm had left most of the roads, including the main highway trunk line 101, totally blocked.

On our trip north, the first day, we passed through the flood divested towns of Orick and Klamath. Evidence of the flood was everywhere, dozens of slides, bridges out or partially out, autos upside down high and dry out in the middle of fields, at one place there were over a dozen where the flood had left them in a pile, houses on end, large logs deposited on the highway, and thousands of feet of lumber scattered everywhere.

We did get to Crescent City that afternoon. Upon arriving there we were advised that road conditions north along the coast on 101 were worse than bad, and that we had better cut across to Grants Pass and take highway 99 on north to Salem, Oregon, and there again leave for the coast eighty miles away. This route we did take without too much difficulty.

Our first days trip took us 182 miles to the point between Grants Pass and Medford, Oregon, there we spent the night, proceeding the next morning to Eagle Point 35 miles away to visit the famous agate beds of that locality. These

fields have been the mecca for "rock hounds" for the past forty years, and thousands of pounds of good cutting materials have been removed, leaving the surface depleted, however we did find a field that had been worked the previous year. This disturbed soil in which the agates occur was the result of a new material being brought to the surface. The rains of this winter have been instrumental in washing the dust and dirt from the agates, so the good ones could be recognized from the worthless ones. The day we were there it was wet and cold, with a brisk wind blowing, plenty of sticky mud and cold feet. The reward for tolerating these unfavorable conditions was a good supply of excellent cutting material. This material, the writer believes, excels the famous "Montana" agate.

By noon of that day we had all we wanted, of both agates and weather, so after a lunch eaten at Grants Pass we left for Albany. We had bad weather every mile of the way (269 miles). We reached there at 7 p.m. and after a good night's rest we left for the coast, by way of Salem and Dallas. Arriving there by 10 a.m. we immediately started to work the beach at a point 5 miles north of Taft. We were the only ones on the beach, as this was no place for our fair weather friends. The swells were running very high, the ocean being very rough.

As the beach can only be worked at low tide, we had 4 hours this day, so decided to stay over until the tomorrow and collect another day. We spent the night at the Craddock Cottages, at Taft, operated by Betty and Slim Fullar. I heartily recommend this place to our "rock hound" friends, you will find these cabins from plain to fully equipped, including refrigerators, everything ready for housekeeping, all but the cook and maid. These, as you know, all "rock hounds" as a rule have with them.

**IN MEMORIAM**  
**ARCHIBALD N. GODDARD**  
**1872-1953**

After a restful night we woke next morning to find a terrific storm howling. Before leaving the cabin, Mrs. Nash gave orders for the day's weather—"No rain, no wind, and some sunshine." I do not give her credit for having divine power but I must state that her orders were obeyed to the letter. Result was, we had excellent collecting.

We got over a gallon of good Natrolites, these range in size from hazel nuts to walnuts, and are excellent for polishing. To my knowledge, this is the only place on the Pacific coast where they are found. We also found a lot of agates and some wood.

After being halted by the incoming tide we left for Albany, over 100 miles by way of Newport and Corvallis; there we were the guests of Mr. and Mrs. C. Harnish. Mrs. Harnish, by the way, is one of the foremost collectors in the state of Oregon. The proud possessor of one of the finest crystal collections to be found anywhere. At this writing, Mrs. Harnish is on a two months trip into Mexico. After enjoying the wonderful visit and displays of her minerals, we, very reluctantly, left her home the next morning heading south again towards our starting point.

We arrived late that night at Medford where we spent the night. The next day again to visit the Agate beds at Eagle Point. After a few hours of collecting we again continued on our way towards home, by way of Crescent City. From Crescent City, south, the road follows the coast, and as the fog was in, the trip along this route was anything but pleasant. At numerous places the white line was totally obliterated, due to the many slides. Utmost caution was necessary in driving, you know that if you went over the grade, the breakers and the crabs were welcoming you. But using care and caution we did arrive home safely.

After summarizing our trip under these conditions, I came to the final conclusion that there were a flock of screws loose in our heads. All this for a few rocks—total mileage 1236. — That's all.

"A new Englander of the finest type," said a friend on learning of the passing of Dr. Goddard, and we added: "What a loss to his friends and family, to his profession and business associates, and to the institution which his deep interest and contributions, helped materially to make one of the finest collections in this country," referring to the gem and mineral collection of the Cranbrook Institute of Science, at Bloomfield Hills, Michigan.

Graduating from the noted Worcester, Massachusetts, Polytechnic Institute in 1899, he came to this State the year this country entered the First World War, and established an industry in Detroit that became the third in production in its special line, the manufacture of milling cutters of the highest quality.

The writer of these lines knew him not so much as a leading industrialist, but as a friend whose visits at my home with Mrs. Goddard, began many years ago, and continued until after Mrs. Goddard's decease, until age and failing health curtailed his activities. Mrs. Goddard shared his interests and made many of the long trips collecting the choice specimens which enriched Cranbrook's and their own private collections.

Several times a guest at the residence on the street in Detroit, called Virginia Park, it was our great pleasure to sense the distinctive hospitality, unostentatious but warmly cordial, that will always be a cherished memory.

Mr. Goddard's private collection of gems and fine minerals, and his fluorescent display of uniquely beautiful specimens, were of continual interest to him and to those who saw and appreciated the fine arrangement and high quality.

On my last visit to him, about ten years ago, he showed his latest in gatherings of specimens for his own collection, but it was to the Cranbrook Institute that his finest pieces had gone, to fill gaps in some series, or to supplement those already on display.

Some time after this last meeting, a package came with a letter reading in part as follows: "I am sending you a little desk piece which I think you will like." It is a trimmed mass of rock about three inches long by two inches in the other two dimensions, the largest face completely incrustured with small amethysts of fine color, from the "Rayas" Mine, Guajuato, Mexico. As it lies before me at this moment, it seems to reflect in its beauty, the fine character of the giver, and brings to mind the pleasure, the value, and the inspiration that can come to a busy man by having some other interest than that of "just making a living," a name, or a fortune, and such was Archibald N. Goddard. "He lives in his good works."

Fred Dustin  
Saginaw, Mich.

## MINERAL COLLECTING IN KOREA

Although few of the Eighth Army soldiers fighting to defend the Republic of Korea will appreciate the fact, theirs is a most interesting battle area mineralogically. Most of the really valuable mineral deposits in Korea are north of the battle line. However, within the United Nations territory is an amazing variety of minerals.

North of the war-torn capital city of Seoul, paralleling the front line, is an area underlaid with every igneous rock, from extrusive basalts to batholithic granites, along with ancient schists and gneisses. The rugged terrain is pock-marked, not with bomb and shell craters, but with a large number of small mines.

Adjacent to the much fought over area of the Punchbowl, included within our lines are several graphite mines. At least one of them must have been kept working by the Communists until it was overrun by our troops in the Spring of 1951, for in front of its adit were tons of fine graphite. During the winter there were always some unlearned soldiers who tried to burn it for coal. I have kept a half-pound specimen, of such quality that it will mark a paper as well as a good lead pencil.

Fluorspar workings are fairly common. I have a beautiful apple green specimen from a small mine in one of our Corps sectors. The same mine produces deep purple, blue and yellow fluorite.

The area behind the Eastern Front possesses a rough, beautiful scenery. Great faults cut across from north to south, followed by streams which have cut deep incised valleys through the mountains. The mountain sides are still forested and the rivers are clear and sparkling. Near Inje the Soyang River flowing south, meets the Naerin River flowing north, and the stream junction, the like of which I have never seen before, makes an angle of some three hundred degrees. Not too far from the stream junction, I came upon a two-foot thick outcropping of pyrite and arsenopyrite. The pyrite crystals were small, but were often perfect cubes. Inje

and the surrounding mountains were fought over several times, so that old minefields inhibit prospecting. The map shows a gold mine high up in the mountains, but I could find no valid reason for exploring it.

The Soyang River valley abounds in boulders that contain garnets. I believe them to be almandite, and some are as large as golf balls. The largest I saw were in a rock that held up a flagpole at the headquarters of the 45th Infantry Division. The rock was too big for me to carry away, and I was hesitant to try to crack it with a sledge hammer, lest some unsympathetic observer report me as suffering from combat fatigue. I did find a small garnetiferous boulder in the Soyang stream-bed. In it is a small green crystal that I cannot identify, but which looks much like a smaragd I bought in Salzburg, Austria. However, it is more likely to be a grossularite.

Among South Korea's contributions to the war, perhaps second only to her manpower, is tungsten. The principal mines are near Yongwol, deep within the interior of the peninsula. I have one rock from the mines there, but it was picked out of the ore bins by an officer who was trying to be helpful, but who was no mineralogist. The rock, and that is what I call it, is a coarse-grained quartz schist, and if it has any flecks of wolframite in it, I cannot tell them from biotite.

I did better at an abandoned mine just south of Seoul. There I had my pick of the dump, and I found several highly metallic specimens of what I am reasonably sure is wolframite. The wolframite is in a matrix of quartz and what I fondly hope is scheelite. Along with the more valuable minerals are pyrite and arsenopyrite. The pyrite specimens have some small but perfect crystals. At the dump were evidence of Koreans having concentrated the ores by hand, by a small hammer, knocking out on a quartz boulder the mineralized portions of the rock. The concentrate is valuable enough to warrant individual attention to each rock. Small mines may prosper again, as the

Korean government is encouraging their operators.

There are a number of gold mines in Korea. All I have knowledge of are small, and unless I have missed some ores not apparent in the diggings, their stock-in-trade is largely auriferous pyrite. There are several cases of our engineer troops, having found piles of rocks at a handy location, made use of them in ballasting roads, later to be billed by indignant owners for having sequestered gold ore.

Seoul nestles between hills of granite, characteristically about half pink microcline and half quartz, with a sprinkling of biotite. The Han River flows south of

the city, through extensive banks and islands of sand. I haven't seen them, but I've been told that Koreans pan gold along its shore. There is a fair-sized bank of red clay and gypsum north of the Han, representing just about the only sedimentary formation in the area.

War goes on seven days and seven nights a week without respite, so that there is no time for a collector to do much more than notice the abundance of interesting minerals.

Col. J. J. Irvin 021217  
G3 Section—Hq. Eighth Army  
APO 301, % Postmaster  
San Francisco, California

## PICTURES IN STONE

By CHARLES BENNETT

210 W. Franklin Street, Horseheads, N. Y.

Now I have seen everything!

Seated at a table in the living room of two gracious people, Dr. and Mrs. Barlow of Trumansburg, N. Y., I have seen pictured in stone: Mt. Fujiyama, Springtime In The Rockies, Windswept Trees Above Timberline, Sunsets Over The Egyptian Desert, Colorful Sanddunes, African Landscapes, Majestic Elms, Stately Pines and Sturdy Maples without moving from my chair.

I heard of these wonders of creation from my friend, Mr. Howard Hamilton of Vandergrift, Pa.

These are Egyptian Jasper cut and polished by the skilled hands of Dr. Barlow and framed in exotic Oriental woods. Truly these are glorious works of nature.

I took some nice mineral specimens along as a gift to Dr. Barlow, but they seemed pretty drab to me before I left.

However, he very graciously accepted them with thanks and gave me some rare and fine specimens.

Thus ended a red-letter day in the life of a rock-hound who is a lover of the beauties of nature.

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## LOOKING BACK - - -

Twenty-Five Years Ago in ROCKS AND MINERALS

June 1928 Issue

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*Micro-chemical study of the Metallic ores and minerals*, by Dr. H. C. Dake, pp. 44-46. The purpose of this series of articles was to call to the attention of the collector and student of minerals, a method whereby one might identify most of the metallic minerals in a scientific way. Dr. Dake, as everyone knows, is now the Editor of THE MINERALOGIST.

*A Microscopic mineral collection*, by C. L. Clinton, p. 47. The author, whose hobby was a microscopic collection, gave some simple methods for housing and displaying tiny minerals.

*Phosphorescence of Minerals, Part 3—*Being a discussion of triboluminescence in minerals, by E. Mitchell Gunnell, pp. 48-50.

*A Mineral study project*, by Mrs. Herbert E. Ives, pp. 50-51. An article on the formation and very successful conduct of a course in minerals for those who have had no previous knowledge of the subject.

*A compilation of gem names*, by Gilbert Hart, pp. 52-53. The third installment of the longest list of gem names ever printed up to 1928.

## THE PEN AND THE CHISEL

### A VISIT WITH GEORGE AND HELEN PAPASHVILY

George and Helen Papashvily, authors of the delightful book and movie *Anything Can Happen* and the humorous *Thanks To Noah*, were hosts to 50 members of the Lapidary section of the Mineralogical Society of Pennsylvania, in April, at Etruba Farm, their home in Quakertown, Pennsylvania.

About 4 years ago, M. S. P. member, George Papashvily, after outstanding success in the literary field decided to try his hand at another art form and took up sculpturing.

Early in his career Papashvily started to carve in wood. An old sculptor friend told him that wood was for the fireplace and not a fit medium for sculpture. How this advice influenced Papashvily's work is evidenced by the granites and agates which are his favorite media. He chose these hard rocks for his work because he felt that if he expended a lot of effort into the production of a piece of sculpture he wanted it to be indestructible, to be felt, handled and even dropped without fear of breakage. He has an antipathy for things which are too delicate to be handled.

At first he made wooden models of what he wanted to execute in stone, but soon found that even if he drew a picture of the piece he intended to carve he lost interest and never returned to it.

To him the shape of the stone brings the subject to mind and thus he has a unique approach. Where most sculptors get an idea and search for a particular material to bring it out, George Papashvily gets his idea from each individual piece and thus his work seems to grow from the stone, achieving unusual harmony between medium and sculpture. It is as though his work radiates a magnetic power of suggestion which makes one run his hand along the smooth and beautiful curves which flow into his sculpture and seem so characteristic of it.

Many of his birds and animals are carved in sleeping poses with heads bent to their bodies. He seems to think this is

an overt manifestation of his subconscious desire not to create things easily destructible.

The Papashvily's have several Italian neighbors who are professional stone cutters. These neighbors have been a great help with their non-critical suggestions on how to work the materials. George Papashvily firmly believes that all Italians are artists.

During the winters the Papashvily's often take cross country jaunts looking for stones suitable for George's work and after going through many states picking up rocks they finally arrive in California where they save the best for shipment home and dump the rest; leaving California geologists the mystery of where these rocks originated and how they came to the California landscape.

Helen Papashvily told us that one time they were in California around Cambria hunting jade without much success. Tired and hungry they stopped at a cafe and after ordering, the proprietor said, "Say, didn't you folks write a book?" When they nodded assent he said, "I knew it, I knew it! When we read your book *Anything Can Happen* I told my wife, some day I'd cook a meal for these folks and here you are."

When they told him they were hunting jade, he surprisingly knew this too and told them about a spot at Clear Creek, 30 miles north of Cambria where at a certain low tide they could go into caves and find all the jade they could carry.

When we first met our host we handed him a beautifully crystallized specimen on blue trap rock. He glanced at the crystals, praised their beauty and then turned the specimen over admiring the matrix, wanting to know where it came from. That caused member, Bob Fitton, who was standing nearby to remark, "This is the first time I have ever seen anyone more interested in a matrix than a crystallized specimen."

Now to get back to his work, let us look at his studio which is composed of



two large rooms with low walls of native stone and many big windows to let in light. Large shelf-like sills extend around the rooms which have concrete floors. One room is used as a showroom and here on the sills and on the floor are found many beautiful and interesting finished products of the artist's imagination, his hammer, chisel and smoothing stones. Some of the things which impressed us were a butterfly in amethyst, a sting ray in gray granite, a Brahma cow in bas relief of brown stone, a huge polished slab of Pennsylvania petrified wood and many animals and birds in native stone. He carves birds of fluorescent Franklin material and under the short wave ultra-violet light they are breathtakingly beautiful.

The other room is his workshop and here the sills were lined with the biggest collection of chisels we'd ever seen. Numerous hammers and rocks of all sizes and descriptions were piled on the floor and wherever we looked there were boulders of granite or stones of similar texture.

George Papashvily has solemnly promised his wife that he would clean out his stones every five years and thus he is like the rest of us who collect rocks and minerals.

As we crossed from the studio to the house we stopped to look at and touch the huge sculptures of birds and animals which enhanced the garden. George agreeably posed for the M. S. P.'s official photographer, Harold Evans, next to a



Photo by Harold Evans

George Papashvily and his statue of the Georgian Shepherd.

statue of a shepherd from his native Georgia.

The Papashvily home is an old colonial Pennsylvania house of "tailored" stone with an exceedingly interesting interior. Large high ceilinged rough beamed rooms and pine paneling showed evidence of the work of the early shipwrights who settled along the Delaware and turned their skilled hands to house-carpentry when boatbuilding was slow. The spacious living room full of easy chairs had a big fireplace on one wall. Many book-cases filled with varied and familiar volumes added to the interesting room. It

seems that he who dares to write or sculpture must read and learn to love books.

In her spacious dining-room our hostess served tea, coffee and a bewilderingly delicious variety of cakes and sweet-meats.

The day ended all too soon and the 50 members who came went their various ways impressed by George Papashvily's art and the real and unaffected personalities of our famous hosts.

Gerry & Will Shulman  
113 Huntington Terr.,  
Newark 8, N. J.

## MUSEUM CURATOR RETURNS FROM MEXICAN TRIP

Additions to the mineralogical and volcanic study collections of Chicago Natural History Museum, and an assemblage of new data to extend the horizons of knowledge in these fields, have resulted from a two months' geological expedition to Mexico from which Dr. Sharat K. Roy, chief curator of geology, has recently returned.

Dr. Roy obtained his mineral collections in the states of Puebla and Oaxaca, and in the Pachuca silver mining region northeast of Mexico City. The volcanic specimens were obtained from now dormant Paricutin, the famous "new" volcano that erupted suddenly in a cornfield in the southwest part of the state of Michoacan early in 1943, and was active until recent months, quickly building up a giant cratered mound towering 2,000 feet or more above the surrounding country.

This was Dr. Roy's second expedition to Paricutin, but his first opportunity to walk across the vast lava field and climb to the summit. The lava flow, which now occupies approximately 16 square miles, had forced the evacuation of a nearby town, and had destroyed several small neighboring communities. The ejected material from the volcano built up a volcanic pile or small mountain 1,000 feet high within the first four months after its eruption, and kept on growing higher

and broadening its base. On the expedition just concluded Dr. Roy was able to obtain specimens of types of volcanic rocks not hitherto available. This time he was able to explore the very rim of the crater which, however, in places is still hot and giving off gaseous fumes.

In the mines of the states of Puebla and Oaxaca Dr. Roy obtained collections of "Mexican onyx" (which is not actually onyx but travertine), a substance occurring in beautiful green, rose and white shades and used in the making of many articles for household use and decoration. At Pachuca he explored the underground mining tunnels several miles in length with their long intersecting veins of silver ore, some extremely high in grade, and collected a series of specimens of varying consistency. Pachuca is the largest underground silver mine in the world and all mining activities had been and still are 600-1000 feet below the surface.

### Would Surely Miss It!

Editor R & M:

Enclosed please find my renewal. I don't believe that I could get along without your admirable magazine.

W. C. Woynar  
4212 Oregon St.  
San Diego 4, Calif.

May 4, 1953

# AUSTRALIAN-AMERICAN MINERAL EXPEDITION

## PART III

By WILFRED C. EYLES

Cypress Court, 4861 E. Lincoln Ave., Cypress, California.

Been back in the U. S. about a month. Been busy every minute relating experiences and also getting acquainted again. I left Sydney, Australia, on May 5 and although it's 8000 miles to these shores, one soon gets here in the planes of today. Only two days flying time and years ago when I went by boat, and boats today are no faster, it took 21 days.

Before I left Australia I sent you a bottle of sand for your sand department. I collected this right at the spot where Captain Cook landed, and I am having some 35 mm. pictures (color) enlarged and when they get back will send one along. This picture shows the monument at the spot where the sand was collected. Captain Cook was the discoverer of Australia and the plaque on the monument can be read with a little magnification.

I spent a very enjoyable six months in Australia. I took a great many colored shots of the grand scenery, also the places of much interest, like the opal fields at Lightning Ridge, and its people. For years we all have read of Lightning Ridge, (N.S.W., Australia) a world famous place indeed and its got its history. But how many of us ever saw what the place looks like?

I can assure you it's much different from what most suspect. It's no desert, but a tree landscaped place with grass growing in great abundance everywhere. It's no ghost town as we all have read, but a thriving small community, with stores, hotel and many homes. Years ago of course when the Opal Rush was on, the population was extensive; many miners are still there but the reason there are not more is that there is great prosperity and high wages elsewhere in the country. So under such conditions, few want to risk hard work in digging for opal. If ever there was a hit and miss proposition, it's opal mining at Lightning Ridge. Under the most primitive means that can be imagined, opal mining is pick

and shovel work—no Jack Hammer, nor even dynamite can be used. The shafts are all dug about five to six feet long to three feet wide. Powder would cave them and that would cause more work. Ladders are not even used. A miner goes down and up with his back on one side, his hands and feet on the opposite side. I can say no other gem stone in the world is gained by such hard work. The lay of the land is flat, so no open cuts. Any bulldozer as we know them would get nowhere. Here is the reason:

There is absolutely no prediction where the opal is—it may be down a few feet, it may be down forty feet and at the forty feet—nothing. It's the most unpredictable thing in the mining world. There are no leads, no veins although opal country abounds for hundreds of square miles. I saw thousands of shafts—right at Lightning Ridge—out at the three miles they are more numerous and also at the place termed The Nine Mile. At Grawin, which is 35 miles west of Lightning Ridge, the country is pitted with shafts and good opal obtained there also.

First the miner picks a spot—any spot would do, as luck has to enter the picture. Then let us go down with the miner to 40 feet. The first four to five feet are comparably easy going, through a broken up shaly appearing small rock particles called Biscuit, then another entirely different formation called Shincracker is encountered. This latter is so called because when struck with the pick it flies off and hits the miner in the shins. This is the toughest material ever dug with just a pick, in reality it's a flinty type of quartzite and solid. It's nothing short of marvellous how they go through it at all, with pick and shovel. I just received a letter from my Lightning Ridge miner friends who wrote they were seven days making seven feet; you just can't imagine the hard work entailed. These

men are entitled to everything they earn and without luck, it's nothing.

To get on with the digging, maybe fifteen or twenty feet of this shincracker is gone through. Then another formation is at last struck. This is a hard cemented sandstone of a reddish hue and it's like cement too. Probably ten feet of this is gone through and all this after at least two months of hard work. At last the pick hits soft dirt—it's the opal dirt to the miner, which really is a reddish clay. A windlass is now installed and this opal dirt is taken up with a rawhide bucket of about two to three gallon capacity. The clay or dirt is dumped and each bucket load is gone through by hand. Every particle is felt, for among it, there maybe a \$1000. opal, more often there is nothing. The opal cannot be seen, it occurs in a form termed a nobby—a small dirt coated nodule. It may be the size of a pea or a marble. It is only found by feel—if water was abundant, washing of course would prevail. But alas, water in most seasons is not to be had except when brought from a distance. The miner gets out all the opal dirt formations. He also tunnels underground in all directions. The miner knows from his past experiences where the opal is, it must lie in this opal dirt and nowhere else. After any success or failure, another shaft goes down a few feet away, with always the same optimism prevailing—going to hit it this time!

We saw shafts of this kind where two months hard work was done and not a speck of opal. In a shaft only twenty feet away—\$500 worth was taken out—so you see when we say Luck—what it means.

When a miner does find a nobby, he has absolutely no idea of what he has. There is a chap on the field with a grinding outfit—the miner takes his nobby to him. He grinds it off on a face—to see its value—in most cases it's valueless—nothing but potch (common opal without color). Every piece of opal found at Lightning Ridge is faced to determine its value.

After what we saw, one thing we decided, someone else can dig opal at

Lightning Ridge. Having been at thousands of mines, from Nome, Alaska, to Mesa Grande in San Diego County, Calif., I can honestly say Lightning Ridge is the toughest place to mine in the world.

Did the readers ever know how the place got its name? Some years back a shepherd with between three and four hundred sheep was on the small elevation called the ridge. When a severe thunderstorm came up—wool has an attraction to ground lightning—a bolt struck this flock, killing everyone including the shepherd—so *Lightning Ridge*.

### Quarry Closed to Collectors

Abuse of privileges by collectors, and the liability insurance problem, have been responsible for the closing of the limestone quarry of the Connecticut Agstone Quarry Corp. near Danbury, Conn. Wilful damage to equipment has been done by "visitors," and on one occasion the superintendent caught two collectors pounding away on the quarry wall under dangerous loose overhang. On another occasion he found about a dozen automobiles had entered the quarry without first asking permission. This quarry produces very interesting specimens of pyrite deposits on calcite crystals, as well as smoky quartz crystals.

The quarry itself is not closed down—just closed to collectors.

It was the constant abuse of collecting privileges that caused the closing to collectors of the famous Sowerbutt quarry at Prospect Park, N. J.

### New Covers Simply Super!

Editor R & M:

Here is another renewal for my favorite mineral magazine! It's getting better all the time and the new covers are simply super!

I especially like the section on "World News on Mineral Occurrences". Keep up the good work!

Nancy Swanson  
153 Watchung Ave.  
West Orange, N. J.

June 22, 1953

### Still Getting Orders!

Editor R & M:

I am still getting orders from my last ad in R&M (Nov-Dec 1952).

A. E. Chapman  
105 N. El Paseo  
Redondo Beach, Calif.

June 23, 1953

# World News on Mineral Occurrences

Items on new finds are desired. Please send them in.

Abbreviations: xl—crystal

xled—crystallized

xline—Crystalline

**ALABAMA** — William M. Johnson, R.F.D. 6, Knoxville, Tenn., sends in a note on graphite in Alabama. Flake graphite, he writes, occurs in the Ashland schist as a belt extending through Clay, Coosa and Chilton Counties. The maximum width of the Ashland schist is about 4 miles extending N.E. to S.W. and the graphite occurs in lenses which are usually some distance apart. The schist is composed of quartz, muscovite or sericite, pyrite and graphite with small amounts of feldspar in certain places. In 1918 forty plants were in operation but by 1940 all but one had closed. This graphite is used in making crucibles. One of the major operations was near Good Water, Coosa Co., Ala.

**ARIZONA** — At Miami, Gila Co., Ariz., chrysocolla associated with malachite, chalcedony and quartz, forming specimens of great beauty, have been found in the Bulldog Tunnel of the Inspiration copper mine. The Live Oak copper mine of the same company (Inspiration Copper Co.) has furnished very fine gem quality bluish-green chrysocolla which has been widely distributed among collectors and cutters.

**ARKANSAS** — In Montgomery Co., Arkansas, about 20 miles west of Norman, there is an old copper prospect in which occurs native copper as small masses in gray novaculite (quartz).

**CALIFORNIA**—The following letter, dated Feb. 22, 1953, comes from Forrest Cureton, 22 Laken Drive, Watsonville, Calif.

"I just read the article, 'Chialstolite of Lancaster, Mass.' (January-February 1953, R & M). It was very well written and most interesting. The main point is that we have good chialstolite xls here in

California and I thought that you might like some.

"They are from Madera Co., Calif., near the town of Raymond on the road to Madera and a little off the road. I was lucky enough to hit a pocket of about 5000 large ones (same size as I am sending you). These are the same as I advertise in your swap column."

We are astounded at the large number of xls found. If Mr. Cureton had found 50, that would have been a good find—500 would be most remarkable, but 5000—that is too much for us! Never before did we hear of such a large number of xls being found in one pocket. How we wish we could have seen the pocket—with its chialstolite xls—when Mr. Cureton opened it.

The xls received are dark gray in color, of good quality, averaging  $\frac{3}{4} \times 1\frac{1}{2}$  inches in size, some with polished end faces.

Another interesting letter has been received from Adolph G. E. Hanke, P. O. Box GG, Carmel, Calif. It is dated May 1, 1953, and reads:

"I refer to the March-April, 1953 issue of *ROCKS AND MINERALS*—Page 129.

"It was interesting to read the reference to the quartz crystals found in the Josephine Mine near Volcanoville, Eldorado County, California. What your correspondent writes is mostly true, however a little more information about those quartz crystals may be of interest. I happen to be a part owner of the Josephine Mine, and acted as Engineer and Geologist during the past few years of its operation. In driving the main tunnel into the mountain we encountered a very hard quartz vein stretching almost diagonally across our tunnel. The drill holes had to be loaded extra heavily in order to make any headway. This quartz vein was filled with many individual cavities

from about a cubic foot to several cubic feet in volume. All of these cavities were lined with beautiful clear quartz crystals. Most of the clusters were broken and shattered by the heavy explosions and literally several tons of these crystals were dumped on the rock dump. One large cavity even larger than 20x20 feet was really an unusual sight to see. Two arms of this cavity still extend upward, filled with crystal, as far as the light from a lantern penetrates. Many of the crystals were six inches in diameter. I, after a great deal of trouble and effort, succeeded in loosening about a dozen clusters of the best crystals varying in size from about 12x12 inches to groups of 50 or 60 pounds each. The crystals were covered with a thin deposit of calcite which easily chipped off leaving magnificent clusters of crystal clear quartz crystals 2 and 3 inches in diameter and five or six inches long. I gave away and traded off all of them excepting a few groups which I kept for my own collection. There were also several double enders, crystals about one inch thick and four inches long.

"This find was made three years ago. For the benefit of any prospective collectors I might say that the tunnel was advanced about 350 feet beyond the quartz vein and all these many tons of rock were dumped on the rock dump, so whatever crystals there may be on the dump are well covered up. The remaining crystal cavities cannot now be reached as we used that tunnel later on as a rock dump to avoid hauling the waste rock to the surface. The mine has been closed for a year and the air now is so bad that it would be suicidal to attempt to enter those workings. I sincerely hope that no one tries it. Someday we may reopen some of the old workings and resume mining. I must say, that in over twenty-five years of mining this was perhaps the most unusual and most beautiful sight that I have encountered in any mine. It greatly enriched my mineral collection as far as quartz is concerned."

What is said to be the largest stone cutting saw in the West, is said to belong to George W. Smith, 950 M St., Fresno, Calif., according to an interesting item in the *Fresno Bee* (Thursday, March 26, 1953). "Fresno collector uses giant saw to split rock specimens," is the caption of the item which is headed by a photo of Mr. Smith who is seen showing the big saw to a young but future rock collector.

The blade of the saw is 4 feet 6 inches in diameter, when Mr. Smith starts using it, but when it wears down to 32 inches he discards it and uses a new one.

"The stuff is cut too big for anyone around here to polish, so I have to take it to a monumental worker," Mr. Smith is quoted as saying.

Another item has been sent in by Mr. and Mrs. Peter Mohlsick, 316 19th St., Sacramento, Calif. It is taken from the *Sacramento Union* May 1, 1953, and refers to a rich gold strike, assaying \$124,950 per ton, made in California's Mother Lode country at Grass Valley.

Mr. Mohlsick is a cousin of the R & M Editor.

**COLORADO**—The U. S. Bureau of Mines are testing some pegmatite deposits 21 miles east of Gunnison, Gunnison Co., Colo., seeking beryl.

**CONNECTICUT**—Richard Schooner, Box 215, East Hampton, Conn., has sent in an interesting article on "The Minerals of Portland, Conn." Because of its length, there will be some delay in publishing it but we hope it will appear this year. In his letter dated April 25, 1953, he mentions a few minerals found in Middlesex County, Conn.

"Sillimanite evidently exists, at least in traces, throughout the Bolton Schist of this area. I discovered an occurrence of it at the Gillette quarry (Haddam Neck) last week. Incidentally, while very little pink beryl can be found on the dumps at this late date, superlative 3/16" crystals of microlite (some twinned) can still be found. I have recently secured some beauties.



"The peculiar white mineral from the Strickland quarry may be wollastonite, of an odd type. I am still trying to get it identified. It has an almost orange fluorescence and a strong phosphorescence. I seem to have collected the entire supply of the locally unique material. I was lucky enough to secure a small bottle full of exceptionally beautiful capillary tourmaline, at the Strickland quarry, two weeks ago, as I recall.

"I found the old garnet mine, which is small and very difficult to locate. Good almandite specimens would be hard to secure, but I discovered that a yellowish-brown mineral, evidently zoisite, is very abundant on the dumps. Several different forms are present, and traces of pyrrhotite and ilmenite (?) also occur. Schairer, who mentioned the mine in "The Minerals of Connecticut," could never have visited the place, since a professional mineralogist could not have overlooked so much of an unusual accessory species."

DELAWARE — Limonite occurs at East Dover, Kent Co., Del.

FLORIDA — Harold Haviland, 719 Drew St., Clearwater, Fla., sent in an assortment of interesting minerals and in his letter, dated March 2, 1953, he writes:

"Very recently there has been some dredging in Tampa Bay (Hillsborough Co., Fla.) along the south side of the west end of Courtney Campbell Causeway. The bottom material is being used to build up a land strip about 75 yards long which is continuous at one end with the Causeway beach, and then juts out obliquely into the water.

"Walking along this land strip, I found a great amount of blue-green clay on the surface of which was scattered the oolitic-like material, No. 3, and specimens Nos. 1, 4, 5, 6, 7. Specimens Nos. 2, 10, and 11 were found at various locations in Pinellas and Pasco Counties, Florida."

The minerals which come from Tampa Bay are as follows:

No. 1—Impure limestone.

No. 3—Nice specimen of pale cream aragonite.

Nos. 4-5-6-7—Petrified wood. Limb sections made up of dark gray chalcedony. This is the first petrified wood we ever saw from Florida.

No. 2—Buff color aragonite.

No. 10—Nice specimen of golden calcite on limestone.

No. 11—Gray chalcedony pseudo after coral.

At nearby Hillsborough Bay, Ballast Point to be exact, is the famous quartz geode (pseudo coral) locality.

GEORGIA—Last fall we received an interesting specimen from Stuart S. Merwin who at the time was residing in Dallas, Paulding Co., Ga. (he now resides at 1010 12th St., Golden, Colo.)

The specimen was beryl, white, xled but stained brown by iron. "I got it from an old mine dump about 6 miles west of Dallas," — paragraph in his letter dated Oct. 8, 1952.

IDAHO—The following letter, dated May 21, 1953, comes from G. Elmo Shoup, Box 756, Salmon, Idaho.:

"Just returned from an examination trip up to Clayton, Custer County, Idaho, where I examined different properties. Property No. 1 was the Grandview Mine located just below Clayton, Idaho. The Grandview, in the early days, produced many thousand dollars in silver, lead and copper minerals and was one of the first mines to work in the Mining camp of Clayton, Idaho.

"Property No. 2 was the Aragonite Crystal Mine, at what is known as Sullivan Rock just on the other side of the Salmon River Bridge (first one above Clayton). This is a lead and silver mine and has not seen too much production; it is still a small prospect in fact, however above the rock that towers in the river, about 600 feet up the hill, is a ledge about 20 feet high. In this ledge is a vein

running east and west containing aragonite crystals and lots of beautiful fluorescent minerals. It was formerly a place for the Indians to bury their dead in the small caves in the rocks. The miner didn't know this and so I was not too surprised to find that he had disturbed the Indians resting place to get into his ore, but as he had already done the job I thought it better not to tell him and so kept my observations to myself. As you may know, miners have funny ideas and it could have ended the development of his mine if he knew what he had done. This place is easily reached from the main Highway # 33. I made my stay at the Sullivan Hot Springs where a cabin was rented at the low price of \$1.50, had two good beds, a stove and plenty of fire wood. Here one can enjoy a good hot bath in the hot sulphur springs, a great way to take that tired feeling out of one. Here one also can enjoy the early history as told by Jim Bradshaw; the owner of the Springs. Jim is 82 years old and can remember names and dates from years ago up to the present time, (which I cannot do).

"Property No. 3 was upon Sullivan Creek. Lead, silver and gold property, a very interesting property and a lot of tunnels to go into.

"Property No. 4 was a quartz located about  $\frac{1}{2}$  mile from the Salmon Main Highway near Stanley, Custer County, Idaho. This is a gold and silver vein and mine and I am anxiously awaiting the sample assays.

"This trip from the head of the Salmon River to Challis is one of the best there is to be had in the U.S.A. The beautiful mountains, river, lakes and the different formations make the trip ideal. The area covered has plenty of minerals for the collector, both for the cabinet and for cutting.

"A News item of this part of the country is as follows:

"Lucky-Custer Mining Company on the Yankee Fork of the Salmon River near Stanley, Idaho, is opening and developing the Anna vein on the property of the Yankee Mines Inc. This vein is on

Custer Mountain, one of the richest places in Idaho. Formerly known as the Lucky Boy Mines. Custer Mountain has many rich mining claims on it and the veins range from stringers to 18 feet in width, averaging about 4 feet. The gangue mineral is cryptocrystalline quartz, associated with quantities of chalcedony, opal and adularia, and the Lucky Boy Vein is 20 per cent calcite. The calcite occurs both as equidimensional rhombohedrons and as lamellar crystals, replaced in places by quartz that retains the crystal form of calcite, and are very beautiful. The ore is gold and silver and some gray copper with pyrite and chalcopyrite. Some of the silver occurs as wire silver and the gold can be seen in the rock."

An interesting specimen from the Grandview mine was received from Mr. Shoup. It is a massive dark brown cuprite encrusted with xled deep blue azurite and crusts of greenish malachite.

**ILLINOIS**—Kaolin (China clay) has been dug at Kaolin, Union Co., Ill.

**INDIANA**—Pyrite has been mined at Bicknell, Knox Co., Ind.

**IOWA**—Galena, the chief ore of lead, has been mined at New Galena, Allamakee Co., Iowa.

**KANSAS**—Fine groups of dark brown sphalerite, beautifully tarnished (blue, brown, yellow, red, green) have come from the lead-zinc mines of Baxter Springs, Cherokee Co., Kans.

**KENTUCKY**—Some few months ago we received a note from Bob Barnes, 3930 Brookfield Ave., Louisville 7, Ky. It was dated Aug. 28, 1952, and read:

"About a week ago I found a small cave not far from my house. I collected a few small stalactites and one very nice larger one that would measure about a foot in length. All of them have a faint light green fluorescence under the short wave light. I would be glad to show anybody the cave but it would be impossible to direct them there.

"I would also be very happy to show any reader the mineral localities near Louisville if they wanted to stop and do some collecting."

**LOUISIANA** — In the last issue we printed an urgent appeal for some notes on Louisiana's minerals threatening that if such notes were not forthcoming and soon the Editor would have to send his Cousin Emily to Louisiana to work in its salt mines so she could dig up a few minerals for us. The very next morning after the issue was sent out our first answer arrived (it must have been shot to Peekskill as the letter was still warm when opened) and it was from that gallant gentleman, Mr. Mark H. Robinson of 18 E. 41st St., New York 17, N. Y. To our amazement, instead of rushing to Cousin Emily's assistance, Mr. Robinson actually encouraged us to send her down to Louisiana. Read this astounding letter for yourself! It is dated June 10, 1953:

"May-June, 1953 **ROCKS AND MINERALS** has just arrived and I noticed under 'World News and Mineral Occurrences' what was said about Louisiana. Please tell Cousin Emily that if she can get two jobs working in the salt mines in Louisiana to please do so and I will go along and fill one of the jobs.

"Our salt mines in Louisiana (Mr. Robinson is from Louisiana) are very interesting places and a good place to work as they are absolutely clean and dry and it is said that the people who work in the mines never have colds in the head or sore throats. The work isn't hard as practically all of it is done by machinery and all you have to do is regulate the cutting and other machines. I would rather be working in the salt mines in Louisiana than living in the New York climate.

"I am sending you by parcel post a specimen of salt dome cap rock which came from the salt dome at Colfax (Grant Parish), Louisiana, where it has been quarried for rock, principally railroad ballast and road building. It is composed principally of calcite, gypsum and anhydrite. If absolutely pure it would be com-

posed of these three only; however, the blue color is caused by argillaceous material which, evidently, was derived from the Beaumont (Pleistocene) clays. The best modern salt dome geologists say that this rock has been precipitated from solutions, therefore it is what is known as a chemically derived rock. It has erroneously been called a limestone by some people but limestone is derived from the skeletons and shells of animals; in other words, an organically-derived rock. Sulphur in commercial quantities has never been found on this dome but if you will look at the specimen carefully you will see some very small pale-yellow spots and if you magnify these spots you will find they are sulphur.

"I hope you will find this information interesting."

The specimen consists of a coarsely xline whitish calcite on a bluish-gray cap rock with some pale-yellow spots of sulphur encrusting the calcite. The calcite phosphoresces pale-yellowish under the long wave lamp.

For the interest of our readers, the Editor was in Louisiana, May 4-7, and he had Cousin Emily with him (also Cousin Kathryn). Did we find jaspers! The mineral is so common that it is used in concrete for roads, sidewalks, walls, etc., etc. We (includes Emily of course) made enough notes to carry this column for at least two years—perhaps we may write up the trip as a special feature.

Though Cousin Emily did not have to work in the salt mines she did get to Louisiana and she did collect many interesting minerals, so the Editor is satisfied. The reputation of **ROCKS AND MINERALS** must be upheld, cost what it may!

**MAINE**—Some small gray claystone concretions from Alna, Lincoln Co., Me., have been received from A. B. Howell, Alna, Me. In his letter, dated April 8, 1953, Mr. Howell says:

"I thought you might be interested in the concretions I am sending you under separate cover. They appear to be formed around small twigs and wash out or may be dug out, of a softer clay

on the bank of the Sheepcot River here. Probably similar concretions are well-known, but I have never happened to see them described. If you happen to know about them it might be nice if you could explain their formations in R & M."

In September-October 1952, R & M, Joseph A. Mandarino had a 6½ page article on claystone concretions, pp. 461-467.

**MARYLAND**—The following note, dated April 14, 1953, comes from French Morgan, 2601 Brentwood Rd., N. E., Washington 18, D. C.

"I recently found a few specimens of hyalite opal at the rockbridgeite locality two miles east of Beltsville, Prince Georges Co., Md. This appears to be the first time this mineral has been reported from this state. We still have other unidentified minerals from this locality and will report concerning them as rapidly as identification has been made."

Ned Blandford, Box 114, McLean, Va., has a correction for an item printed in our March-April issue (p. 131). In his letter, dated May 20, 1953, he writes:

"Our good friend, French Morgan, in his report on Maryland in the last issue of R & M—World News on Mineral Occurrences—has erred somewhat. I found, or made the initial find of, millerite at Frostburg (Allegany Co.), Md. but the date was May 8, 1952, and I was accompanied by a junior collector of the Washington, D. C., Min. Soc.; not by anyone from Baltimore. The discovery was made in a snowstorm with more than an inch of snow on the dumps and I managed to collect two specimens showing the delicate divergent xls on xled siderite. On July 3, 4, 5 & 6 of 1952, I made another trip to this locality accompanied by a party of four collectors from Baltimore, Md. Two of these chaps, Harold Levey and Johnny Glaser, really hit a bonanza in one boulder on the dumps, with each acquiring more than a dozen specimens of millerite. The best of the lot was a piece collected by Harold Levey with needles of millerite some two to

three inches long on a matrix of xled siderite—really a beauty! This was far better than my two finds back in the month of May and, while I did not get any millerite this trip, managed to come away with a good load of xled siderite barite and quartz."

**MASSACHUSETTS**—Black plates of ilmenite on and in massive smoky quartz have been found at Tyringham, Berkshire Co., Mass.

**MICHIGAN**—A handsome specimen of pale brown, doubly terminated calcite xls (up to 2" in length) on a little brownish limestone was donated by Louis Reamer, 336 Elizabeth Ave., Orange, N. J. The xls fluoresce green under the long wave light. The locality for this fine specimen is a large limestone quarry at Monroe, Monroe Co., Mich.

**MINNESOTA** — William H. Mason III, 372 S. Miss. River Blvd., St. Paul 5, Minn., poses a problem in his letter, dated April 16, 1953.

"I am hoping that some portions of this letter will be printed soon in your wonderful magazine.

"First, may I comment on your new cover. It's just grand. . . . It adds a friendly touch to your publication, it's distinctive and shows excellent taste and does not cheapen the already high quality of the magazine.

"I have a problem I should like to air in your column, it's precisely Greed, yes I said Greed. I'm a member of our local mineral club. Lately there has been much trouble in the club because several groups of members have been outwardly selfish as to their locations of mineral finds. I don't mean for a person to give all his pet locations away to the world, but after all what is a club for? I firmly believe that nothing can ruin a club faster than **CHILDISH GREED**. . . .

"The problem has grown to such proportions that a bunch of different camps have been set up each trying to find something the other camp doesn't have, and when a new locality is found it is never devulged. This is not the way of

a TRUE ROCKHOUND, this is the way of adolescence.

"I hope that last bit finds its way in to your magazine.

"I am enclosing a very good location for calcite xls. in Minnesota.

Excellent Calcite Xls.

Scalenohedron also acute rhombohedral.

Found in Oneota Dolomite.

North of Rochester, Minnesota (Olmsted Co.).

Hy. 63 to Co. Road 300, then left to Zumbro River. Go across bridge about blocks there is a quarry there. Excellent algae structure are also obtainable here. There is plenty for all".

MISSISSIPPI — Nice brown jasper pebbles occur along the shore of the Gulf of Mexico at Biloxi, Harrison Co., Miss. A good spot is the beach directly opposite the Buena Vista Hotel.

MISSOURI—Azurite occurs in an old copper mine near Sullivan, Franklin Co., Mo.

MONTANA—In the January-February 1953, R & M, we had an item on some fine moss agates from the Hardin district

in Big Horn Co., Mont., that had been collected by Al Thrower, P. O. Box 305, Santa Cruz, Calif. A photo was to appear with the item but it got lost; another has been sent in by Mr. Thrower and appears below.

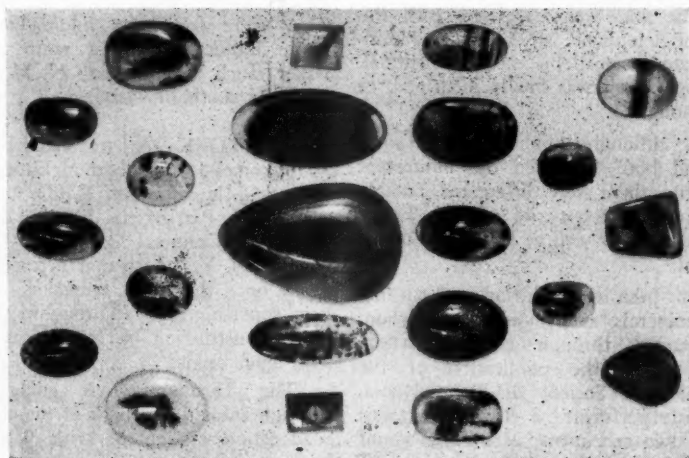
The Hardin district is famous for its moss agates and we are pleased to print a photo of them. A letter received with the photo reads:

"A few cabochons made from the moss agate I collected in the Hardin district, near Billings, Montana. I visited the locality last June, (1952) but find good Montana agate very scarce."

NEBRASKA — The following item, dated April 23, 1953, was sent in by Rev. C. B. Howells, Baptist Student House, 315 N. 15, Lincoln, Nebr.

"Gravel pits along the Platte River in Nebraska are good hunting places for jasper, agates, petrified wood, fossils, etc. Other good pits are at Fairbury and Steele City (both in Jefferson Co.), Nebr.

NEVADA—Massive amethyst, in a dark brown porphyritic rock, occurs in the Las Vegas Wash., Clark Co., Nev.



A few cabochons made from moss agates collected in the Hardin district near Billings, Montana, by Al Thrower of Santa Cruz, Calif.

**NEW HAMPSHIRE**—Kunzite (spodumene) occurs as pinkish masses at the Chandler feldspar mine, near Raymond, Rockingham Co., N. H.

**NEW JERSEY** — Bevan French, 98 Alexander Ave., Nutley 10, N. J., has sent in an interesting letter. It is as follows:

"I have some information on a very interesting occurrence of jeffersonite from Franklin, N. J., which you might be interested in printing in your *World News on Mineral Localities*.

"A specimen of greenish, pyroxene-like material was collected by me on the Buckwheat Dumps about two years ago. The original piece, about the size of a loaf of bread, was broken up, and pieces saved because they contained cleiophane, a fluorescent white sphalerite, rather uncommon at Franklin. The cleiophane fluoresced orange and blue under short wave light, but the colors were much more pronounced under long wave ultraviolet.

"The matrix material remained unidentified until recently, when Mr. James K. Fisher, of Havertown, Pa., sent me information on a new occurrence of roepperite, a rare iron mineral, at Franklin. This roepperite had the appearance of pyroxene and was associated with fluorescent cleiophane. Mr. Fisher very kindly donated a small piece of the material. My "pyroxene" was finally identified, or so I thought.

"But, although the minerals were similar, and both contained the fluorescent sphalerite, there were differences, notably in color, the roepperite of Mr. Fisher being darker, as well as heavier, than my material.

"Mr. John H. Gibson, who analyzes minerals as a hobby, and whom I contacted through the *KEYSTONE NEWSLETTER*, the publication of the Mineralogical Society of Pennsylvania, graciously performed a chemical analysis on the two specimens, Mr. Fisher's and my own, which I sent him. And was I surprised when I got the results! Mr. Fisher's specimen was roepperite, while

mine, although similar, turned out to be jeffersonite, a common pyroxene found frequently at Franklin.

"Both minerals, especially the jeffersonite, had been subjected to weathering, so the analyses differed slightly from the figures listed in Charles Palache's "The Minerals of Franklin and Sterling Hill, Sussex County, New Jersey," but the identifications are fairly certain. To my mind, it is interesting because the jeffersonite (or "False roepperite") is unlike the usually crystals in calcite, and also both minerals, although different, are somewhat similar in appearance and both contain the fluorescent cleiophane. It goes to show, I guess, what strange things Franklin does and will produce.

"I hope that this information will prove interesting for you."

**NEW MEXICO** — At the Houston, Texas, Convention, May 1-3, 1953, the Graffham's, Box 419, Ardmore, Okla., had on display many fine minerals among which were a number of interesting geodes from near Deming, Luna Co., New Mexico. The geodes were lined with tiny slender xls of amethyst or rock crystals—all very nice.

According to Mr. Graffham, the geodes come from weathered rhyolite. They were found by Eddie Lindberg, while bulldozing for a ramp on the Baker ranch in Luna Co., N. M., about 40 miles south of Deming.

**NEW YORK**—A letter dated Feb. 13, 1953, comes from Egbert McElroy, prop. Monroe Mineral Store, R.F.D. 1, Monroe, N. Y. Part of the letter is devoted to some old mineral localities of Orange County, N. Y., which may become active again once they are "reopened" by the new super-highway (Throughway) now under construction by New York State. The letter reads:

"The Throughway is going right through a fossil bed back of the old railroad station at Highland Mills. Work will be started this spring or summer and it will be a good time to get some nice specimens. They found a new one there



but it has not yet been named. The old iron mine is right near this new cut and that is where we find crinoid stems.

"They put a gas line through last year and uncovered some quite good red and yellow jasper; that was below the railroad tracks.

"The new Route 17 is to be started this year and will cut right through my pet forest. They may uncover some new tree trunks or ferns (petrified). I will watch out for good specimens."

**NORTH CAROLINA** — George H. Dean, Box 326, Oak Hill, Fla., has sent in a small clipping taken from a recent edition (April 1953) of the **FRANKLIN PRESS**, Franklin, N. C. It relates to new uranium find near Highlands, Macon Co., N. C. The clipping reads as follows:

#### FINDS URANIUM ORE

Dr. William A. Matthews reports that uranium ore has been found in a pegmatite seam on his property near Highlands falls. This is said to be the first uranium ore found on the Highland Plateau and has been identified by the government as euxenite. Dr. Matthews added that this euxenite has not yet been found in sufficient quantity to be mined commercially.

**NORTH DAKOTA** — S. T. Parke, Sterling, N. D., in his letter of Feb. 15, 1953, writes:

"Am sending you by parcel post several pieces of diamond drill cores from our new oil wells. They are all from—4000 to 8000 feet down."

From the Dronen well, 10 miles north of Driscoll, Burleigh Co., N. D., we received a 3½ diam. core of gray massive gypsum, a nice specimen.

**OHIO**—Charles H. Innis, 166 Pearl St., Jackson, Ohio, sent in a clipping from the **COLUMBUS DISPATCH**, Columbus, Ohio (Feb. 18, 1953) relative to the finding of a rare element in Ohio coal beds. Part of the clipping reads as follows:

"An Ohio coal bed contains the most significant concentration thus far found in the United States of the little known but electronically valuable element, germanium, the United States Geological Survey reported today (Feb. 18).

"The germanium concentrations were discovered in Ohio's Lower Kittanning coal bed covering a number of middle Buckeye counties in preliminary investigations conducted by the Survey in the State in connection with its nationwide search for the rare element.

"Germanium has many potential uses, but its most important use is in the field of electronics. It is a semi-conductor—that is, it will conduct electricity in one direction, but not in another."

One of the sites examined by the Survey is the coal mining lands of Lindsey Belville and Sons at Greasy Ridge, 14 miles from Chesapeake in Lawrence County, Ohio.

**OKLAHOMA** — John Gorecki, 1119 No. College, Tulsa 4, Okla., sent in the following item, dated May 26, 1953:

"Here is a news item on a mineral occurrence. To quote from the Okla. Geological Survey's Bulletin 42, May, 1927: 'In August, 1913, 29 tons of ore were shipped from a surface working 5 miles west of Byars in McClain County, Okla.

"The smelter returns show that 1300 ounces of silver were received, having a value of \$785.

"The material is silver chloride in a soft, reddish sandstone."

**OREGON** — Some nice amethyst has been found xled in geodes near Madras, Jefferson Co., Ore.

**PENNSYLVANIA**—From David E. Snell, 431 2nd St., Weatherly, Pa., we have received three letters. The first, dated, March 23, 1953, reads:

"Under separate cover I have sent two specimens that I thought you might like

to mention in your column, World News on Mineral Occurrences.

"The one is a piece of the Pottsville conglomerate with a thin fluorescent encrustation of schroechingerite on it. This material was taken from the site of the test uranium mines at Mauch Chunk (Carbon Co.), Pa., located on U. S. route 309. I got the material before the shaft was started, and have not been able to find any more since that time. However, some will probably form again in the future because it is formed as a result of water percolating to the face of the rock and evaporating, thus leaving the mineral as a thin deposit on the rock. I understand that the 'ore' being sought is carnotite and a uranium sulphate. So far I have found only one really good specimen of carnotite. As yet, I have not found any good specimens of the zippeite. Later I expect to have more information on this area.

"The other specimen is a piece of white travertine (aragonitic?) from White Rock Quarry at Pleasant Gap (Centre Co.), Pa. This material fluoresces blue-white under the long wave lamp.

"I have specimens of both minerals to offer for trade for fluorescent long wave specimens."

The second, dated April 10, 1953, reads:

"One of the newspaper articles I read on the area (Mauch Chunk) mentioned uranium sulphate as one of the minerals occurring in the Mauch Chunk region. If this information is factual, then I presume that the mineral zippeite (uranium sulphate) will occur where conditions are favorable. I found the schroechingerite while looking for zippeite in the area.

"The white aragonitic travertine was found as flowstone at White Rock Quarry, Pleasant Gap, Pa. This is a limestone quarry."

The third letter, dated April 12, 1953, gives more information on the Mauch Chunk locality.

"I visited the mine site yesterday afternoon (April 11) and found that they are ready to blast out the place where I obtained my schroechingerite specimens. I looked over the area again and got some very good specimens of carnotite in conglomerate. I would like to trade this off to some of the Franklin, N. J., collectors for calcium-larsenite and clinochroite. I have visited this area several dozen times already and this is the nicest carnotite I have found there yet."

A nice specimen of black dendrites on gray shale has been received from G. J. Gelston, Box 83, Torrance, Pa. In answering our letter acknowledging the specimen, Mr. Gelston replied as follows in his letter dated March 16, 1953:

"Thank you for your interest in these dendrites. Sorry I haven't much of them left—gave away a mess of them and some were nice large specimens.

"The unusual feature is that the dendrites are on shale. I found only a small bed but within a few weeks will see what I can do to find a spot where all interested may pick up what they wish.

"There are several abandoned quarries of the 'bluestone' type of limestone which, being low in lime, were used at one time for paving blocks, railroad ballast and for mixing in concrete. It is still used in our state highways.

"The quarries are on Chestnut Ridge several miles south of the main line of the Penn. R. R.—some above Hillside, Gray, and Torrance, Pa. The dendrite sent you came from above Gray (Somerset Co.). The floor of this quarry is sandstone, a foot or so thick, and the shale is beneath; how deep it is I do not know—it is exposed in spots by erosion. I was hunting calcite when I noticed the dendrites.

"All quarries (above Hillside, Gray and Torrance) are easily accessible by car, with a short walk added."

**RHODE ISLAND** — In the mineral collection of Brown University, Providence, R. I., is a very nice quartz-agate-jasper specimen (red, white and gray—6x6) which comes from the famous Diamond Hill locality, Providence Co., R. I. The label with the specimen states that it was shown at the Philadelphia Centennial, 1876.

**SOUTH CAROLINA** — William M. Johnson, R.F.D. 6, Knoxville, Tenn., informs us that good greenish epidote has been found at the Nott gold mine, 4 miles S.E. of Glen Springs, Union Co., S. C.

**SOUTH DAKOTA**—An interesting letter plus some interesting specimens have been received from John P. Connor, Box 522, Armour, S. D. His letter, dated April 24, 1953, reads:

"I am sending you a clipping about the burning bluff on the Missouri River at Wheeler (Charles Mix Co.), S. D.

"Wheeler, an old river town and former county seat of Charles Mix County, was abandoned with the old river steamers and the county seat moved to Lake Andes, 15 miles east.

"I visited the burning bluff last year but did not find too much activity. Recently I visited Fort Randall, Missouri River project, 6 miles south of Lake Andes and was surprised to find the conditions described by Dr. Rothrock in progress there also. Heaps of the fill material used in making the closure, having been exposed to air were burning and giving off clouds of sulphur smoke; glowing embers could be seen so you can bet I didn't try to hold my hand in it. It would have been better for boiling water or frying eggs.

"I don't know how combustible the material is, so I am enclosing some in air tight jars. Jar #1 is material the fire did not reach. Jar #2 was burning when collected. And Jar #3 must be the porcelain Dr. Rothrock refers to."

A clipping from the **ARMOUR CHRONICLE**, Armour, S. D., (Friday, March 27, 1953) was enclosed with Mr. Connor's letter. It reads:

## **BURNING BLUFF NEAR WHEELER NATURE FREAK**

One of the most interesting geological freaks in South Dakota, the burning bluff, is situated about a mile from the Rosebud bridge near Wheeler.

Heavy sulphur fumes and smoke are emitted from it when it is most active, causing passerby to gape in wonder.

The burning bluff was discovered during the Lewis and Clark expedition nearly a century ago. How long is had been burning before that is anyone's guess.

According to the original journal of the Lewis and Clark expedition:

"As the rain set out, a 190-foot high blue clay bluff appeared on fire. The clay is too hot for a man to bear his hand in the earth for any depth.

According to an Indian tale the bluff was the residence of devils who killed all who approached.

Dr. E. P. Rothrock, state geologist, says the bluff is composed of burning oil shale layers which are found in the Pierre formation. In it are nodules of iron pyrite, iron and sulphur, commonly known as "fool's gold," he says.

"Under the right moisture conditions," Dr. Rothrock explains, "spontaneous combustion will occur when the pyrite is brought to the surface."

That is why the bluff is most spectacular during a rainy period.

Dr. Rothrock verifies the Lewis and Clark statement that the bluff is too hot for the human hand. He says the combustion generates enough heat to make porcelain of the shale. — Lake Andes Wave.

The 3 specimens sent by Mr. Connor are as follows:

No. 1—Soft, gray-black shale.

No. 2—Soft, gray shale encrusted with white efflorescences of melanterite.

No. 3—Burnt shale, red in color, with some gray—not porcelain as yet as it did not burn long enough. A little white melanterite encrusts it.

**TENNESSEE**—Psilomelane, an iron-black manganese oxide, occurs in the

Yellow Springs mine, near Newport, Cocke Co., Tenn.

TEXAS—Joe and Rose Murphy, 210 Altgelt Ave., San Antonio 1, Texas, had a large display of smoky quartz xls at the Houston, Texas, Convention, May 1-3, 1953. The xls varied from small loose ones to xled groups of large size. Many xls were nicely stained by red hematite; some xls had inclusions of red hematite.

These smoky quartz xls were very nice specimens and had been found both loose on the ground and by digging at Mason, Mason Co., Texas.

The Renfros, 2901 Bomar, Fort Worth, Texas, who have supplied R & M with many choice sand samples, also had a booth at the Houston Convention and featured fossils. There were small fossils and large fossils, tiny and medium size—all very interesting. Some specimens were fossil sponges, silicified, pinkish, and would take a high polish. These fossil sponges occur as a reef in limestone at Bridgeport, Wise Co., Texas (50 miles north of Fort Worth).

Mrs. Millie Viets, Rt. 7 Box 33, San Antonio, Texas, was another exhibitor

at the Houston Convention. She had some sawed slabs of dark brown limestone containing grayish coral fossils which attracted considerable attention. This limestone occurs as chunks at Gonzales, Gonzales Co., Texas, but when sawed and polished produces very nice specimens.

Diagonally across from the R & M booth at the Houston Convention, was one occupied by Frank Woodward of Alpine, Texas. On the corner of his display table was a large mass of green moss agate—very good gem material and which attracted lots of attention.

This fine mass weighed 170 pounds and was found last November by Mr. Loyal E. Humphries, Box 18, Balmorhea, Texas. The find was made on Mr. Woodward's ranch (there are many agate deposits on the ranch and Mr. Woodward leases the agate property to rockhounds). The area was full of agate (small pieces) as the large ones had been carried off by collectors and so Mr. Humphries had to look around a bit to see if anything big was still left. Happening to notice a small corner of an agate sticking out of the ground, he started digging to see how big it was and—uncovered the huge agate. The exact locality is Sierra de



With the help of Tico, the burro, the huge moss agate is brought down from its resting place up the hill, 1½ miles away. Frank Woodward (left) and Loyal Humphries (the finder) steady the agate on Tico's back.

Aguaia (Needle Peak), near the mouth of Santa Helena Canyon (Brewster Co.), in the Big Bend country of Texas. Because of the heavy weight of the agate, Mr. Humphries contacted Mr. Woodward who in turn contacted Tico (his faithful burro) and thus the large specimen was transported safely to where a car was ready to carry it further.

The agate is owned by Mr. Humphries.

UTAH—Dr. A. L. Inglesby, Torrey, Utah, donated to R & M some few months ago, a reddish geode lined with small colorless calcite xls. The specimen comes from the shore of Great Salt Lake, 1 mile south of Saltair, Salt Lake Co., Utah.

VERMONT — R. L. Sylvester, 154 Parkside Ave., Syracuse 7, N. Y., in his letter of May 31, 1953, reports a most enjoyable field trip to the Vermont Asbestos Mine at Eden Mills, Lamoille Co., Vt.

"Last Friday we drove to Burlington, Vt., where we stayed for the night. The following morning we drove out to Eden Mills where we met the group from the Rochester Mineral Club (at 11 A.M.). There were 32 of us now—we were taken in the company's bus up the side of the mountain to the workings above, where we did our collecting—asbestos, serpentine, garnet (all nice specimens). It was a very fine field trip and we all enjoyed it."

VIRGINIA—Ned Blandford, Box 114, McLean, Va., in his letter dated May 20, 1953, informs us:

"Virginia Polytechnic Institute in Blacksburg is coming out with a checklist of mineral species. I'll get a copy as soon as they're off the press and attempt to review it for our readers."

A clipping relative to a new map was enclosed by Mr. Blandford. It reads as follows:

#### NEW MAP OF VIRGINIA SHOWS MINERAL DEPOSITS

Special Dispatch to The Star

BLACKSBURG, Va., March 4. —The occurrence and distribution of Virginia's

main mineral deposits are shown in a new 36 by 54-inch map in five colors, displayed here today by Dean John W. Whittemore, director of the Virginia Engineering Experiment Station.

The map, according to Dean Whittemore, "contains all the basic data needed for an appreciation of the importance of our mineral resources to the Virginia economy, and it should prove very valuable to the many industries that use or consume minerals."

Furthermore, he said, the map should be particularly useful to high school science teachers, since it provides a convenient way to present a co-ordinated picture of Virginia's mineral resources.

Copies of the map ready for wall mounting may be obtained for \$1 each from the director of the Virginia Engineering Experiment Station, Blacksburg, Va.

WASHINGTON—A letter dated Feb. 16, 1953, comes from Lloyd Colburn, 1012 Kessler Blvd., Longview, Wash.

"Picking up a copy of R & M and glancing through it, I ran across the article on the Olympic National Park, Wash., which reminded me of a specimen of a worm hole referred to in said article. West of Longview (Cowliitz Co.), Wash., there is a bed of blue clay in which concretions containing crabs and snails are found. Some time ago while visiting this locality I found a long concretion that was dug out of the bank. When broken open this concretion showed something which was new to me. Now, after reading the article on the National Park, I have come to the conclusion that the "something" in my long concretion is a fossil worm hole, about 8 inches long and  $\frac{5}{8}$  inches in diameter. (I have several perfect fossil crabs from this locality)."

WEST VIRGINIA—G. Vincent Schofield, 1112 Highland Road, Edgewood, Charleston 2, W. Va., has sent in a clipping from his local paper, *Charleston*

*Gazette*, Saturday, April 18, 1953. It reads as follows:

#### STATE GEOLOGIST CITES LIMITATIONS IN MINING FOR GERMANIUM ALONE

Germanium, the rare element which appears destined to revolutionize modern electronics, exists in quantity in West Virginia coals but recovery methods are still to be perfected.

State Geologist Paul Price told members of the Charleston Rotary Club yesterday that it would not be profitable for coal mines to mine for germanium alone despite the high per pound price of the mineral.

The most promising discoveries in this state have been in coal deposits in Preston County and to a lesser degree in Upshur County, Dr. Price said.

Germanium, he explained, is the mineral from which transistors are made, and transistors will take the place of vacuum tubes in radios, television receivers and other electronics communications equipment. Its tiny size will make possible the Dick Tracy-inspired wrist radio.

Emphasizing the tremendous impact which the transistors have had upon electronics was the recent decision of the U. S. Army Signal Corps to spend \$4,000,000 to perfect mass production of germanium.

Dr. Price said a "crack team" of West Virginia University geologists and scientists have developed a method of removing a complete segment of coal from a seam and for transporting it intact to the laboratory.

Examination under a spectrograph, he continued, has disclosed that germanium, when discovered, exists in the top two to three inches of the coal seam and in the bottom two or three inches.

Dr. Price said hundreds of coal samples have been sent to the laboratory at the university for analysis to learn whether the rare mineral was present.

The element is found in the ash of the coal and some recovery is being made from the inside of stacks of coal-burning power plants.

Germanium also is being recovered as a by-product of lead zinc, he said, adding that it also had been found in certain South African mineral deposits.

**WISCONSIN**—Nice red jasper pebbles are found on the Chippewa River in Ashland Co., Wisc. (between Glidden and Bear Lake—1 mile from Bear Lake), so we have been informed by Francis E. Schiller, 75 Lincoln Ave., Rumford, Me.

**WYOMING**—Large beds of collophanite (phosphorite), a dull black phosphate rock, occur near Cokeville, Lincoln Co., Wyo.

**ALASKA** — Chalcopyrite, as small brassy-yellow masses in reddish granite, occur on St. Lawrence Island, 25 miles southwest of Gambell on the Seward Peninsula, Alaska.

**AUSTRALIA** — Black cassiterite xls occur at Elsmore, N. S. W., Australia.

**BOLIVIA**—A group of lustrous black cassiterite xls—3x3 inches in size—from the famous tin mines at Araca, Bolivia, was donated to R & M by H. P. Morissette who formerly resided in La Paz, Bolivia; Mr. Morissette is now at Mina La Luz, Siuna, Nicaragua.

**CANADA**—An interesting specimen of reddish granite with thickly scattered plates of lead-gray molybdenite with some xline pyrite has been donated R & M by John W. Edwards, 305 Avenue Road, Toronto 5, Ont., Canada. The locality for the specimen is Rose Township, near Sault St. Marie, Ontario, Canada.

**CUBA**—Howard V. Hamilton, 115 B Adams, Vandergrift, Pa., sent in the following item, taken from *Chemical & Engineering News*, April 27, 1953, issue:

A major source of nickel ore has been discovered by Freeport Sulphur Co., at



Moa Bay, Cuba. Exploration has established the existence of least 40 million tons of nickel ore about 500 miles east of Havana. Freeport says that except for certain deposits in Canada, the Moa Bay ore-bodies constitute the most important proven source of nickel in the free world. The ore contains about 1.35% nickel and 0.14% cobalt.

ENGLAND—We have received a number of specimens sent us by P. D. Boerner, who had been residing in England for the past year (we do not know his present address as he has left the country and is on his way to Australia). One of the specimens was an amber-yellow xled calcite on a light buff oolitic limestone. The calcite fluoresces and phosphoresces cream under the long wave lamp. It was collected last April by Mr. Boerner at an old limestone quarry at Ford, Gloucestershire, England.

GREECE—Paros, in the Aegean Sea, is a mountainous island, famous for its marble. The ancient quarries in Mount Marpessa, are close to Parikia, the capital, on the west coast. From this Greek island we have a small specimen consisting of rock crystals (quartz) with xline black pyrolusite. The specimen was sent us by J. Lavranos when he formerly resided in Athens, Greece; he now resides in South Africa (P. O. Box 10257, Johannesburg, Transvaal).

SCOTLAND—A beautiful analcite, white, xled on basalt 5" x 5" in size, and the finest gem quality prehnite we ever saw, 3½ x 4" and both coming from Boyleston quarry, Barrhead, Renfrewshire, Scotland, have been donated to R & M by Sandy Ramsay, 1015 Aikenhead Road, Kings Park, Glasgow S4, Scotland. The prehnite is a beautiful translucent apple-green botryoidal mass on basalt; a very rare gem quality specimen.

A paragraph in a letter from Sandy, dated May 12, 1953, reads:

"Nothing much to say but want you to remember—if you mention the prehnite in 'World News Occurrences,' I

would like you to emphasize the fact that gem quality prehnite is of a very rare occurrence—as a matter of fact the piece that I just sent you is about the nicest colour that I've seen from there."

SOUTH AFRICA—Ernest M. Skea, Box 46, Pilgrims Rest, Transvaal, South Africa, has sent in some more minerals among which are some nice jasper pebbles (dark brown, also reddish). These pebbles he had picked up in the Batoka Gorge below the Victoria Falls on the north bank of the Zambesi River in Northern Rhodesia, South Africa.

Miss Adi Redman, Geologic Museum, Public Library, Johannesburg, South Africa, has sent R & M a number of minerals from South Africa. One of them is a nice bronzy plate of vermiculite which comes from Molopocho, Lydenburg District, Transvaal, South Africa.

SWEDEN—A nice loose black tourmaline xl, from Godegaard near Linköping in Östergötland, Sweden, has been received from Gerhard Koppen, Skanegatan 3, Nybro, Sweden.

WALES — In the January-February 1953, R & M, p. 42, P. D. Boerner described his visit to the ancient Roman Gold Mines at Pumpsaint, Caermarthen-shire, Wales, where he was most fortunate to find a milky-white quartz with a cavity holding a very nice piece of native gold. He sent us some specimens from the old mine which consisted of chalcopyrite, hematite (yellow ochre), pyrite and quartz (rock crystals).

On May 7, 1953, we received another specimen from the old mine (sent by Mr. Boerner). This was a 2 x 2 inch massive milky quartz in whose cavities we found 2 small xl masses of native gold—very, very nice.

Mr. Boerner formerly resided in London, England, but has left for Australia and we do not know his new address.

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## THE AMATEUR LAPIDARY

Conducted by **COMMANDER JOHN SINKANKAS**

**Certified Gemologist, American Gem Society.**

1107 S. Oakcrest Road, Arlington, Va.

Amateur and professional lapidaries are cordially invited to submit contributions and so make this department of interest to all.

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### UNUSUAL GEM STONES

Some place along the line, the amateur will suddenly realize that the cutting of standard materials no longer has the thrill that it did in the beginning, — it isn't boring exactly but an itch to conquer new fields develops. That is the beauty of the gem cutting hobby, if you aren't satisfied with one phase, another equally fascinating and equally difficult beckons from the distance. So it is with the treatment of unusual gem materials, those rarities which seldom come to hand and which present a challenge in exploiting their possibilities to the fullest extent. Very often these rarities are extremely soft or possess excellent cleavages or embody some other trait which makes them difficult to prepare. If they show some optical effect or "phenomenon," care must be exercised to place the effect where it will do the most good. Several such exotic materials have crossed my desk lately and I set them down, along with a few explanatory notes, as an incentive for my readers to seek the unusual as well as the ordinary even though the latter may have a thousand variations.

*Spodumene Catseye* — Hundreds of pounds of white, opaque, massive spodumene are available in the dumps of the lower quarry on Newry Mt. in Maine. This material when cut in a high cab, presents a conspicuous eye. The phenomenon is due to a multitude of tiny plate-like inclusions.

*Cordierite Catseye, Sunstone and Star.* Cordierite, by itself, is not exactly a common material and when found in suitable pieces it is most renowned for its startling trichroism, a polished piece demon-

strating conspicuously a change in color from blue to straw-yellow as it is turned about. Rarely, it is found with inclusions of another mineral which are present in sufficient quantity to afford an optical effect. If the inclusions are metallic in lustre, a sunstone effect somewhat similar to feldspar is obtainable. If the inclusions are oriented, a catseye or even a four-rayed star is possible.

*Jasper from Virginia*—On the western side of the Blue Ridge in Virginia is found a narrow belt of metamorphosed volcanic rocks which in terms of stratigraphy, appear to be next to the limestones and other sedimentary rocks characteristic of the mountains further west. This belt is of interest to cutters because it contains in places accumulations of an unusual jasper which in color may vary from a rich chocolate-brown to a pale reddish-orange. The jasper is sometimes orbicular or flowered and in certain pieces, is mixed with spots of pale green epidote affording unusual and beautiful material. A number of pieces of this jasper have been found as stream-worn boulders in the creek beds and gravel pits of Washington, D.C., and surrounding areas. Some of the jasper is shot through with hematite veinlets which when carefully polished yield an attractive gem.

*'Beryllated' Quartz* — For want of a better term, I shall use the foregoing to describe a piece of rock crystal which caught my eye in the office of Inter-Ocean Trading Corp. in New York City last year. This fist-sized piece of rough stood out from its neighboring rutiled

quartz in that the needles were quite transparent and of a very pale green color. The inclusions were suspected to be tourmaline of course, but instead of being triangular they were definitely hexagonal. The piece was sliced into three slabs and each was polished to allow examination under a microscope. Under magnification the hexagonal outline was confirmed but the surfaces were much etched and the needles interrupted in places where etching had been profound. Fragments of the inclusions were submitted to Dr. Switzer of the U. S. National Museum for x-ray examination and confirmed to be beryl. In size, the needles range from about 1/100" to 1/32" diameter and from 1" to 3" in length. This is the first time that the writer has seen beryl in quartz in such an occurrence.

*Hematite in Quartz* — Schortmann's show in New York City in 1952 provided a crude quartz crystal from Brazil whose apex faces were seen to be underlain by a layer of scattered hematite inclusions. The xl had little merit as a specimen and accordingly was dissected to provide some thin slabs with inclusions arranged parallel to the flat sides. Under strong transmitted light the inclusions are deep red while in reflected light the steely-gray of hematite is at once apparent. The crystals are thin, elongated plates or flakes about 1/8" in length and about 1/32" in width. One slab was retained to cut into a flat tablet pendant.

*Lazulite*—Through the courtesy of Mr. Judd of Montclair, N. J., I received a piece of rough lazulite collected by him at the famous Palermo Quarry, North Groton, New Hampshire. A most handsome cabochon mottled in several shades of rich blue was cut from the heart of the piece. A fine polish was achieved by using Linde A on leather.

*Pectolite*—In Lake Co., 2 miles east of Middletown, California, pectolite occurs in seams of about 3/4" width in a serpentinous rock. Apparently the growth of the radiated needle-like crystals started

from each side of the seam and met in the middle giving an unusually compact material which suffers little from the splitting tendencies of ordinary pectolite. A block of serpentine with a fine seam of the material was furnished the writer by Dr. G. Switzer for experimentation. Carefully sliced and just as carefully ground, several pieces were brought to the polishing stage without mishap. A quick and fine polish was gotten with leather displaying to best advantage the chatoyant sheen of this fibrous material. In color, the material is white with pale tan tones where the edges of the fibres are exposed to view.

*Aventurine Quartz*—I was amazed one day while hunting in my favorite gravel pit on Shirley Highway in Fairfax County, Va., to find a pebble of quartzite. Now pebbles of quartzite are not hard to find around the District of Columbia but this one was different—it had inclusions of silvery mica in it which spelled '*Aventurine*.' And so it was. Dull grayish in color it nevertheless turned out an intriguing and unusual cabochon.

*Catseye Williamsite*—The lovely compact williamsite from the Line Pits Chrome Mine a short distance from Rock Springs, Md., is noted in the East for the bright green which the best specimens produce. Ordinarily tough because of its extremely fine nephrite-like structure, certain pieces can be found which are definitely fibrous and splinter readily. If this fibrous material can be found in sufficiently large and flawless pieces, it produces an unusual and lovely cabochon with a soft bluish white eye across the top. One day I was lucky and found such a piece, a large one too, enough for plenty of cabs, so I thought. But alas, it was so fibrous and so easily split that even my fine phosphor bronze facet-material blade left furred edges. Nevertheless, several cabs were cut which turned out lovely stones. Greatest care had to be taken in all grinding and sanding operations to prevent splitting. When I

was finished I knew it was worthwhile for the cab, about 5/8" in diameter was a lovely thing—rich oily green, flawless, almost transparent and with an eye! Speaking of serpentine, maybe some of you know about satellite, a fibrous type which was mined at one time in California. In fine pieces it was really something. Maybe you Californians can look up the locality and get something different to add to the collection.

*Cachalong*—The Paterson, N. J., cutters haven't been saying much about their local brand of agates which come from the traprock quarries of northeastern New Jersey but some of it is really fine. Mr. Bill Aitken of Westwood, N. J., gave me several pieces to play with one day which consisted of geode sections. The interior edge of the specimens were encrusted with pale smoky quartz crystals, directly beneath were several layers of predominantly white agate with pinkish orange pastel bands, then a wide band of cachalong opal where the geode came in contact with the host rock. Cachalong is peculiar material because of its porosity. It absorbs water so quickly that your tongue will stick to the specimen. Polishing turned out to be simply and beautifully done with Linde A on leather. Another specimen of dark color but solid agate this time was furnished by Mr. Gene Vitale of Haledon, N. J. By cutting this parallel to the geode wall, a beautiful "eye" effect was obtained showing black rings on a background of dark yellowish gray.

*Moonstone From California*—At last year's Eastern Federation Convention in Newark, N. J., I bought some California feldspar from the genial Mr. Roots. This material is the transparent straw-yellow weathered feldspar which comes from Lake Co. if I recall correctly. Anyway, one piece showed a sheen and was cut en cabochon to bring this phenomenon to the forefront. When finished, it presented a rather handsome moonstone with a bluish-silvery light against a background of pale tan.

*And So Forth*—I could go on in this vein for hours but the main point of all this discussion is there for you to see—there are a lot of unusual things around to cut but you must make yourself alert to the possibilities and not get in a rut. Maybe some of the items in this short list may strike a responsive note in your memory. I hope they do because there is much enjoyment in collecting unusual things and cutting them to show them to their best advantage.

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### Money Well Spent!

Editor R & M:

I am enclosing a money order for \$3.00 to renew my subscription for **ROCKS AND MINERALS**. I won the \$3.00 in our local high school science fair with an exhibit on minerals. I can think of no better way to spend it than on your magazine.

I like your new cover, and I hope that you will continue to have this type.

Charles Wood  
424 Otsego St.  
Ilion, New York

May 18, 1953

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### Club Likes R & M!

Editor R & M:

Enclosed you will find a check renewing our Society's subscription to your very splendid magazine for one more year.

Our Board of Directors voted to renew this subscription because of the many good comments received by me, as librarian, from our membership, concerning the make-up of the magazine.

My personal comments are to be added to theirs as I have found **ROCKS AND MINERALS** to be most informative and helpful to one new to this hobby. Many thank-yous.

Mrs. Geo. H. Learned, Jr. Librarian  
Contra Costa Mineral & Gen Society, Inc.  
P. O. Box 501  
Concord, California

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### Congratulations Appreciated!

Editor R & M:

I would like to renew my subscription for another year and congratulate you for publishing a thoroughly enjoyable magazine.

Carolyn Hunsinger  
4042 Vermaas  
Toledo, Ohio

June 22, 1953



## FOSSIL DEPARTMENT

Conducted by **EDWARD T. BARONE**

48 Elmwood Road, Verona, N. J.



## THE FOSSIL DEPARTMENT

### CONDUCTOR BARONE TENDERS RESIGNATION

It is with sincere regret that we print the following letter, dated June 16, 1953, from Mr. Edward Barone, who has been the conductor of our Fossil Department. The letter reads:

"This is a letter long due you, and I was sincerely hoping I wouldn't have to write it—explaining the delay.

"Since my last communication with you my health has been impaired to such an extent that coupled to personal family difficulties, I have found it impossible to continue my editorship of the "Fossil Department in ROCKS AND MINERALS. I regret this probably more than you do

since carrying on this new department has been a "dream" of mine for years, but now circumstances prevent my doing so.

"Fortunately you've written me that you have one or two others interested in writing this column. Anyone you select will have my full support—as my health will allow.

"Thank you for all past favors, and especially for the honor of selecting me.

Mr. Barone's letter explains why the Fossil Department failed to appear in the last issue of **ROCKS AND MINERALS**. We are very sorry to lose Mr. Barone, but the Fossil Department will continue.

### COLLECTING FOSSILS IN FLORIDA

By **J. E. Moore**

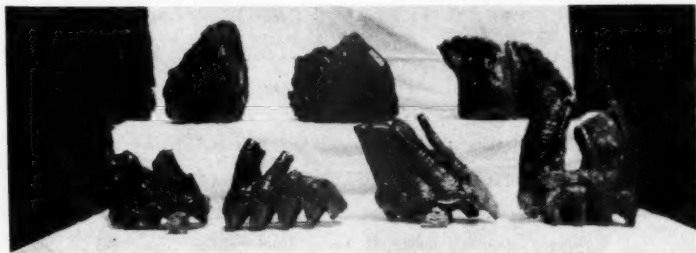
3818 Bayshore Rd., Sarasota, Fla.

I was gratified to see you have added a fossil department to your magazine, as pre-historic fossils have never been given the publicity they deserve, especially Florida's Pleistocene fossils.

I have been hunting, digging and collecting fossils here for the past 28 years.

In mammal remains I have found about all the fossils of the Pleistocene Period from a mouse to a mammoth.

Among the larger animals I have found two species of mammoths, two of mastodons, three of horse, bison, camel, tanu-polama, smilodon, tapir, giant beaver,



Mammoth and mastodon teeth found in Florida by J. E. Moore.

glyptodon, mylodon, chlamytherium, bear, wolf and many others. All in Sarasota and Manatee Counties, Florida.

The bird bones I have found number 25 species, the rarest of them was the remains of the giant condor, also the remains of fossil fish, alligators and the teeth of huge sharks.

When they were making dredged canals to drain the low lands East of here it was a fossil hunters dream come true.

My most important find was the fossil remains of a fossil man. The staff of The American Museum of Natural History of New York City said it was the most intensely fossilized human remains they had ever seen, unfortunately it had been thrown out by a drag line and I could not say for sure if it was associated with pre-historic animal remains, nevertheless I am still hoping to find the fossil remains of a man *in situ* with pre-historic mammal bones.

Anyone who would be interested in just what I have found here will find lists of them in American Museum of Natural History Novitates, Numbers 393, 406, 442, and 443.

A list of the bird remains can be found in Smithsonian Miscellaneous Collections, Volume 85, No. 2 and the Extinct Land Mammals of Florida by George Gaylord Simpson, an American Museum publication.

I am enclosing a picture of some of the mammoth and mastodon teeth I have found, also a picture of myself removing mammoth leg bones from Phillippi Creek —this picture was taken by the late Dr. George Gidley of the Smithsonian Institution.

#### Over 90 and Still Interested in Minerals!

Editor R & M:

Please renew my subscription. I got the first number, 1926, and received the magazine for over 25 years. Being over 90 years old now I am still interested in collecting and reading of minerals. In fact I got from 3 African localities 35 diamonds, also some rare mineral specimens from Europe and Africa. So you see I have to keep on finding out what is happening in the mineral world.

P. Walther  
508 Muriel Pkwy.  
Elizabeth 3, N. J.

June 17, 1953



J. E. Moore removing mammoth bones from Phillippi Creek, Fla.

Photo by George Gidley  
Smithsonian Institution



## MINERAL SHOPPER'S GUIDE

Conducted by **CHARLES A. THOMAS**  
706 Church Street, Royersford, Pa.

Advertisers are invited to send notes or samples of their products. This service is free.

First off, we want to thank those who took the trouble to send us some samples of natrolite pebbles and thomsonite with or without lintonite. Mr. Abendroth sent us some very lovely radiating snow-white pebbles of natrolite from Oregon. Frank Hankins, of Collegeville, Pa., gave us a few cream colored natrolites also from Oregon. An Idaho collector sent us a large rough piece of thick vein material from his state and the Ambuhls send in some small pebbles of thomsonite from the Lake Superior region (beaches). Ward's Natural Science Establishment sent lintonite and thomsonite for our examination . . . all very interesting and very reasonably priced. Thanks to all for their fine cooperation.

Those who like to experiment with an idea should try dying polished natrolite. The various types are readily dyed with almost any type of dye including the new white dye used in soap powders which gives the whiter natrolite an even whiter gleam and also imparts an unusually brilliant blue-white fluorescence under the long wave lamps. Blue dyes appear to bring out hidden radiating patterns and where ever there are pinkish natrolite areas, the blue dye lends a purplish hue. Apple-green dyes are readily absorbed, giving the material an appearance, in some instances, much like variscite. Dealers generally stock fine natrolite. If the reader has difficulty in securing polishable natrolite, please contact this department.

George Papashvily, author of two best sellers, the most widely read of the two being "Anything Can Happen," thrilled us recently with his show of beautifully sculptured rocks from all over the country. They are carved with great skill and show an unusually fine appreciation of ideal curves as seen in sleeping animals, such as cats, swans, fawns, ducks, mantarays, butterflies, foxes and many other types. Some of the difficult carvings are

complete, others are in polished relief, such as the ray and butterfly which are imposed on rounded boulders of the hardest kind of rock collected from many localities in the East and West. Mr. Papashvily shapes the stones, which range from a few pounds to over a ton, with hammer and chisel, using electric grinders only where absolutely necessary. Carvings of fluorescent rocks are not among the missing. Several beautifully carved Franklin, N. J., rocks show excellent form and beautiful reaction under short wave lamps. Travelers who may find themselves near Quakertown, Pa., should ask directions to the Ertoba Farm, the home of Mr. and Mrs. Papashvily, and we are sure that these fine people will be glad to show you this great work of art.

We feel that we can report progress in our own tumbling operations. There have been certain conclusions drawn which may or may not be governing factors in our next selection of materials. Jaspers will be left out since these (all types) are tough and do not seem to warrant the time needed to get them into ideal shapes and ready for polishing. Other opaque stones such as aporhyolite, serpentine and unakite merely appear to be a sort of frustrated gastrolith, although some opaque stones such as turquoise, some coppers and obsidians are ideal. Mostly, we would select the translucent and clear quartz stones; stones with inclusions, citrine, amethyst, apatite and even fluorite. Brown and lavender fluorite from the first batch were beautiful and did not break apart. A piece of African petalite is especially nice. Wonderful possibilities, about which more later.

It is surprising that so few dealers recognize the value of the small specimens sometimes thrown away as unsaleable when they contain micromount material. Crumbs no larger than the little fingernail may have a value from 10c to

\$2.50 depending on the rarity, beauty and combination of micro crystallization. A word of caution to dealers who have not taken the trouble to look into the subject; micromount material is not the same as thumbnail. For instance, a thumbnail specimen of zincite is not micromaterial, though a thumbnail specimen of axinite may contain exceptionally ideal micro axinites with the beautiful red crystals of hancockite . . . jumping the price or value from 25c to at least \$1.50 . . . depending on the number of cavities containing good micros. Only those small specimens presenting the rarest beauty could possibly be valued at \$2.50 although we have heard of micros bringing much more.

The thirst for knowledge seems to be the top motive which is the drive that stirs most collectors into activity in the first place. We hope we never lapse into a sort of passivity, the state of which might cause us to forgo the challenge when we come upon some mystery of nature. Some few weeks ago we found ourselves enjoying, with other members of the M. S. P., the fossil paved beaches of Calvert Cliffs, Maryland. Shark's teeth, of course, and plenty of perfect shells filled our bucket (a bag is not so good for such fragile specimens), but the most unusual specimens, to us, were the many mammal bones found on the beaches. Some small fragments were so hard, we thought at first that we had found petrified wood as well as bone. The prize of the day, as usual, was found by Leonard Morgan. He had picked up two rather heavy and very black chunks of bone which seemed to be changed completely into manganite, showing the radiating fibrous structure peculiar to Michigan manganite and about as black. Sea muds are known to be rich sources of manganese, therefore it is not improbable that the black sections of mammal skeleton are truly pseudomorphs of manganese after bone or teeth or whatever section the specimens might have been. Also, many very hard jasper-like masses were found, beautifully mottled in several colors, which we cannot say are fossils, although one expert suggested that possibility. A

crocodile tooth was picked up by Mrs. Morgan . . . more than 15,000,000 years old; the tooth, that is.

Oh, for the life of a beach comber! Now we know why collectors in California, Michigan and Maine, like to collect on beaches. The beaches of Maryland on the Chesapeake Bay gave us quite a few water and sand polished cabochons of startling beauty which were various types of quartz including one small gem of citrine as nearly as we could tell.

The Bradleys sent us a nice packet of gem material. Mexican cherry opal, Australian opal, citrine, fluorite, quartz with various inclusions such as actinolite and rutile, and turquoise were evidently selected with the usual care which make for successful dealership. The Bradleys are well-known advertisers in this magazine.

Another box was received from Mrs. Sally Ellison, of Clifton, Arizona, also an advertiser in *Rocks and Minerals Magazine*. This selection was made up of obsidian nodules, quartz concretions, apache tears, midget thunder-eggs, chalcodony roses, the well-known Arizona botryoidal chalcodony-agate which can be used for specimen or for the making of lovely honey colored cabochons and two larger thunder-eggs which revealed surprising patterns when sawed. The midget thunder-eggs are new to us. The tiny hickory-nut size spheroids presented unexpected patterns in snow-white and a pleasing brown . . . very lovely, indeed.

A call came in recently asking for information on the availability of buhrstone. If we recall correctly, this quartz material is found almost exclusively in Europe . . . near Paris, France, and in one locality in Belgium. If your favorite dealer does not have this interesting cellular quartz rock, noted for its fossil seed and pod casts of the challa plant, please contact this department. It is a very hard, flinty and pinkish-cream colored chalcodony-like material, will polish where small dense sections, free of cells, will permit and some specimens will fluoresce slightly.

Two look-alikes, which have a suffi-

ciently different specific gravity for determining with the Cargille Heavy Liquids, are bornite and covellite. Both minerals are heavy, black metallic coppers and both present the peacock play of colors. Covellite, with its platy structure should be easy to identify and it is, in some cases, much more attractive than bornite. Both minerals are often associated closely with sphalerite. Beautiful specimens of these two interesting copper ores have been found in Pennsylvania and Montana. Your dealer usually lists them. Covellite, in excellent micro forms, has been collected at the famous Ecton Mine locality, near Audubon, Pa.

There are several widely varying types of specimens which the average field collector would almost give his right arm to find. How many of us have found a meteorite, a diamond, or a dinosaur foot print? We have just received a letter from Mr. R. E. Riecker, Manager of the Midwest Shop in Chicago, that he has several very fine dinosaur prints in stock . . . just in case you have given up hope of ever finding one. Mr. Riecker is also stocking many kinds of micro-mount specimens . . . good news for the many new addicts of the 'scope.

New Jersey collectors sure love to travel far and wide. Last summer, we ran into the Newark group at the French Creek Mines and this spring we were about to leave our favorite zeolite quarry, when the Plainfield, N. J., group arrived just ahead of a thunderstorm. Our favorite zeolite quarry, as you may know by now, is Kibblehouse Quarry near Perkiomenville, Pa. Too bad the rain spoiled collecting. That night, we polished what appeared to be a new pattern in natrolite which we found that day. The polish was most brilliant and the pattern resembled those beautiful snails which were brought back from the South Pacific after the last war (II). Perfectly round eyes, close together and in varying hues of brown and tan against a buff colored background, almost matched the pattern in the snails, the name of which escapes us.

Do not answer this . . . but does your favorite university or college have cellar rooms piled to the rafters with dust-

collecting cases of beautiful and rare specimens from famous world localities? There is no need to ask, really. We know that every state has one or more great houses of learning and we will bet that some of the cellars are stocked with some of the most unusual and rare specimens ever found in this world, to say nothing of their beauty . . . should the years of dust ever get washed away. The task of labeling is gigantic. Of a certainty we have excellent museums throughout the land, but what a pity the college and university specimens cannot be made to rise and shine! We observed a sky-blue perfect crystal of beryl in one cellar which was crammed full of dust covered cases. This beryl probably weighed about 120 pounds and after wiping off a layer of dust from its top face, we peered into depths of lovely blue aquamarine gem. What a pity!

It is not easy to confine one's interest in fluorescence to strictly mineral activation. We pulled up some bloodroot tubers this spring, cut them up and placed them in a jar of water. Within minutes, two distinct colors were seen under the EH4 long wave lamp . . . brilliant blue and vivid orange. Invisible stain on the hands appeared yellow.

In the eight or ten years that we have been collecting the brilliant fluorescent orange, yellow, apricot and blue slag from an old furnace near our home town, we have kept our eyes peeled for mention of a similar slag from anywhere else, but to no avail. We sneak up on our slag pile in the dark of night with a short wave lamp. Elverswitches complain about your hammering and ahs and ohs or about the strong odor of sulfur. Mr. Shanely and son and daughter, from Boyertown, were along this last night trip and teamwork netted the happy sulfur sniffers a fine batch of fluorescent slag.

Some years ago, we told how a lone piece of this slag was discovered several miles from its actual source and how some time later, it was tracked down to its lair. Rare earths and manganese sulphate account for the vivid orange-yellow and bright blues as seen under short wave

lamps. A variety of after-glow hues are noted in different specimens and quite a few tests were run for thermoluminescence in which warmed up and humidified gases seemed to give off a weird blue ray not unlike incandescent sulphur. Daylight trips to the locality, the Bechtlesville Furnace, will disclose odd crystallization of blue and grey slag, excellent micro rods and stout crystals of micro gypsum and/or selenite. Other undetermined crystals, man made, may be seen in small cavities.

The above is a short rehash so that new users of Mineralights may be able to find similar occurrences in their own bailiwick. Investigate those slag piles . . . if for no other reason than that naturally occurring material is scarce in your area. Manganous slag is also being investigated for sources of manganese.

Going east this fall? Connecticut? If you find yourself near Danbury, get in touch with Ronald Januzzi at 83 Elm Street. He will guide you to very interesting localities, save you time a hunting places and show you just where to dig or hunt specimens. What a wonderful way to visit localities! We certainly could use more Ronald Januzzis throughout the country. A token charge of a dollar an hour is his only charge for his time and effort.

We note, with some interest, that Walt's Mineral Shop, Elmhurst, N. Y., is offering native bismuth in quartz, lepidolite and Mauch Chunk carnotite. Brilliant, metallic bismuth is very attractive, often excellent micro material and a very worth while display specimen. The lavender color of Middle Haddam lepidolite is lovely and the yellow encrusting carnotite on the red-brown Mauch Chunk shale is in nice contrast for those who like color in minerals.

Pat Fancher, of Silverton, Colorado, shipped us some very excellent specimens of the now very scarce huebnerite. Pat says, in his letter that the specimens, which he is advertising in this issue, are representative. If so, we would love to see

his good ones in the Hotel Museum in Silverton, Colorado. The huebnerite is associated with quartz and/or fluorite. We know that even representative specimens of this mineral are getting very scarce, indeed. Pat says in a note, that he has some museum type pieces as well as those being advertised in this issue. If the representative pieces he sent are a guide, these special museum pieces must be very nice. Pat's address is Box 392 Silverton, Colorado.

Once in a while we hear from Kentucky. George Bryant, of Lawrenceburg, sent us a small sample of fossil which he states is found in sections up to more than fifteen pounds. The small segment looks very much like fossil sponge (like a portion of cauliflower). We have advised Mr. Bryant to contact our fossil editor for more definite identification.

One of the benefits of belonging to a mineral society is that one can learn more about localities. Mr. Claude E. Golden, of Easton, Pa., is seeing to it that his area will not long be unnoticed. He has sent us and other members of the M. S. P. (Penna. Society), a cross section of what may be found near Easton. Red jasper, brown jasper, very solid and hard from Brown's Terrace, molybdenite in limestone (William's Quarry, Easton) and several pieces of serpentine from near Phillipsburg, N. J., were in the package. He also sent a few unusually fluorescent Mexican fluorites which react a nice blue under all lamps. Even under the short wave. A piece of asbestos and a nice chunk of muscovite were also in the package. We believe that the muscovite is yellow enough to deserve to be called Eastonite.

How many times have we broken into a crystal-lined cavity in a quarry wall and mentally noted that if the small groups of calcites were larger, they would most certainly be beautiful? Of course, the smallies are beautiful, but often too large for micro, too small for thumbnail specimens and just not right for display. We opened a package this morning which came across the country from San An-

tonio, Texas. We knew that not a crumb or bruise would be found since the package was so well wrapped and packed. In it were two superb aragonite specimens crystallized in botryoidal form, translucent and light honey colored, another nearly round mass of terminated radiating crystals of the same material, a complete calcite geode of exquisite beauty (in two halves) and a slab of coquina rock in reddish brown, quite heavy and showing a

great many interesting forms of fossil shell. The aragonite specimens seem to bend light rays in such a way so that they are radiantly translucent. They also fluoresce and phosphoresce under all lamps. The geode also reacts under all lamps and is especially bright in phosphorescence. All of these specimens were sent to this department by Millie Viets, whose Agate Shop is just outside of San Antonio, Texas. Her ad is in this issue.

### THOMAS J. SCANLON

(Feb. 27, 1882-June 5, 1953)

Thomas J. Scanlon, a native Chicagoan, was born on Feb. 27, 1882, and died June 5, 1953. He was a Chicago Board of Education Engineer since 1908, Chief Engineer Custodian of Chicago Teachers College since January 1922.

His first interest in earth sciences was through industrial uses of minerals, then he became interested in geology in 1936 when his daughter entered Wilson Junior College. In 1937 the Marquette Geologists Association was founded and Mr. Scanlon became a charter member. He was made Chairman of Association in 1938. He was interested in the affiliation of M. G. A. with the Chicago Academy of Sciences in 1937-38. He served as a member of the Board of Directors of M. G. A. on retiring from the Chairmanship. He was one of the founders of the Midwest Federation

and a past president of this Federation. Mr. Scanlon was also a founder of the American Federation of Mineralogical Societies, serving as Treasurer during 1950-51 season, Vice-President 1951-52, and at the time of his death was President for the 1952-53 season.

Mr. Scanlon was interested in all phases of the earth sciences and had acquired a large collection of minerals and fossils since his first introduction to the hobby 17 years ago. His lapidary shop was well equipped and because of his deep interest in his hobby his library on earth sciences and lapidary art had become extensive.

Mr. Scanlon was a member of the Constitution Committee for Revisions for the Midwest Federation and Curator Librarian of M. G. A. at the time of his death.

## WHEN A ROCKHOUND SPLITS A ROCK

(with apologies to E. V. Smith and the ousted duck)

Collectors turn an anxious eye  
When a rockhound splits a rock.  
And then collectors always sigh  
When a rockhound splits a rock.  
And then we all prepare to rise  
And hold our hands before our eyes  
And be prepared for some surprise  
When a rockhound splits a rock.

He braces up and takes a wedge  
When'er he splits a rock.  
He won't allow a soul to talk  
When'e'r he splits a rock.  
The chisel jammed into the side  
He watches it with conscious pride  
While everybody seeks to hide  
From flying chips of rock.

The chisel's always sure to slip  
When a rockhound splits a rock.  
Then empty out the First Aid kit  
When a rockhound splits a rock.  
The chips and crystals leap in space  
We get our specimens in the face  
The rockhound mutters Hindoo grace  
When'e'r he splits a rock.

We then have learned to walk around  
His cellar-room and pluck  
From off the windowsills and shelves  
Our share of the rockhound's rock.  
The rockhound gripes and growls and  
jaws  
And swears the thing was full of flaws  
And we all pity him because.  
He couldn't split the rock.

by B. French and A. C. Kaye-Martin

## THE SAND COLLECTOR

Conducted by PETER ZODAC, Peekskill, N. Y.

Items on Interesting Sands Wanted. — Please Send Them In.

### Garnet Sand from Stanley Buttes, Arizona

Some few months ago we received an interesting garnet sand that had been sent us by Paul Walker, 578 Chestnut, Beaumont, Calif. This was a brown, coarse sand—all brownish andradite (garnet), some grains were gemmy, with a small amount of black magnetite.

"Mostly andradite garnet from wash below the great andradite dike, Stanley Buttes, near old mining town site of Stanley, Graham Co., Ariz., in the Santa Teresa Mts. Cloud bursts sweep through this canyon and lighter material is washed away leaving "drifts" of almost pure garnet sand,"—on label with sand.

### Shell Sand from Salton Sea, Calif.

Paul Walker of Beaumont, Calif., sent us another sand sample which he had collected from the west shore of Salton Sea in Imperial Co., Calif. This is a gray, coarse sand consisting almost entirely of minute but complete fossil shells (gastropods)—nice little specimens and all white—with some smoky and brownish quartz. Under the long wave lamp, some of the shells fluoresce red, a few yellow.

"Concentrated by wave action west shore of Salton Sea, Imperial Co., Calif., near the Riverside Co. line,"—on label with sand.

### Chlorite Sand from near Blythe, Calif.

Still another sample received from Paul Walker of Beaumont, Calif., is a dark green, coarse chlorite sand. The sand consists chiefly of lustrous dark green chlorite, gray feldspar, and colorless quartz.

"This was the pocket-filling material in a large quartz pocket that we worked out in the McCoy Mts., SW. of Blythe,

Riverside Co., Calif. Many large quartz crystals were impregnated with this material making them almost black. Some small crystals had chlorite flakes "floating" on phantom planes within the crystals. Optical crystals up to 3" x 8" came from this pocket which contained about 5 gallons of this chlorite sand,"—on label with sand.

### Glauconite Sand from Richardson Bay, Calif.

Al Thrower, P.O. Box 305, Santa Cruz, Calif., has sent in an interesting sand which was collected from Richardson Bay, Marin Co., Calif. This is a dark grayish-green coarse sand—almost all glauconite—with traces of black magnetite and white sea shells.

"Enclosed is a small vial of sand from Richardson Bay, Marin Co., Calif.—6 miles north of Golden Gate Bridge,"—letter dated Jan. 8, 1953, from Mr. Thrower. Mr. Thrower sent us also a map of the San Francisco—Oakland Metropolitan District which shows the location of Richardson Bay—it is part of San Francisco Bay.

### Beach Sand from St. Petersburg, Fla.

From the beach at St. Petersburg, Pinellas Co., Fla., we have a sand sample that was collected by Mrs. Lillian McQuiston, Box 259, 22nd St. Sta., St. Petersburg, Fla. This is a medium grained gray sand and all colorless quartz.

### Beach Sand from Fernandina, Fla.

Fernandina is at the northeastern tip of Florida, in Nassau Co. From its beach on the Atlantic Ocean we have a sand sample that was collected for us by M. L. Peterson, 933 N. Longfellow St., Arlington, Va. This is a fine grained gray sand—all colorless quartz.



#### **Garnet Sand from Emerald Creek, Idaho**

Some few months ago we received an interesting garnet sand from G. W. Weber, 1320 Portland Ave., Walla Walla, Wash. This is a dark pink coarse sand—all dark pink garnet with many showing crystal faces. A letter from Mr. Weber, dated Oct. 10, 1952, reads:

"Recently made a field trip to the Emerald Creek garnet locality and secured a nice lot of garnets, and am sending you under separate cover a parcel of small almandites and of garnet sand found at Emerald Creek, a tributary of St. Marie River, some 5 miles up the stream near Fernwood (Benewah Co.), Idaho. This is a commercial dredging proposition, and the large rocks and coarse gravel is screened out and the remaining sand with garnets are removed, ground and screened into various sizes of grits. The finished product is largely used in sand blasting in the aluminum industry and for cleaning jet engine tubes.

"Within 3 miles of this location is another locality on a tributary of Emerald Creek where garnets up to an inch are found in a mica schist, some of which is of gem quality."

#### **River Sand from Lawrence, Kans.**

On the north bank of the Kansas River, in Lawrence, Douglas Co., Kans., is a good size sand beach (about 200 feet long and 50 feet wide). On July 1, 1952, the conductor of this column, with his cousin, Royce Phillips of Washington, D.C., stopped at this beach to collect a sample of the sand. The sand is grayish-brown, medium grained, and consists chiefly of quartz (colorless, brownish, gray chalcedony, gray chert, reddish agate), with some pinkish garnet and a tiny amount of black magnetite. Some brownish cast-off skins of centepides also noted in the sand—how did they get in?

Royce had been in Lawrence many times and so knew of the beach.

#### **Beach Sand from Grand Island, La.**

This is a very fine grained dark gray

sand consisting chiefly of quartz (colorless, smoky, brownish) with pale green epidote and black magnetite. It was donated by Louis Rodrigue, Raceland, La. His letter, dated March 24, 1953, reads:

"This sand was collected on the beach of Grand Island (Grand Isle), Jefferson Parish, La. The island, 8 miles by 1 mile, is right off Louisiana's coast and is in the Gulf of Mexico.

"The famous pirate, Jean Lafitte, buried treasure worth millions on the island, of which none has ever been recovered."

#### **Garnet Sand from Fortune Rock, Maine**

Some few months ago an interesting garnet sand was received from Mrs. Ruth H. Wentworth, 135 Maine Ave., Portland, Me. It comes from Fortune Rock, York Co., Me., and is a fine grained reddish sand consisting chiefly of pink to dark red garnet, colorless to smoky quartz, gray to brownish feldspar, black magnetite, green epidote, silvery muscovite, and a little colorless zircon that fluoresces orange.

A letter from Mrs. Wentworth, dated Jan. 10, 1953, reads:

"Garnet sand from Fortune Rock on the beach about 7 or 8 miles S.E. from Biddeford, Maine. There was a space about 20 by 20 feet of this, the other being just ordinary beach sand."

#### **River Sand from Nebraska**

About  $2\frac{1}{2}$  miles southwest of Melia, Sarpy Co., Nebr., the Platte River, flowing in a southeasterly direction is crossed by U.S. 6. From the east bank of the river and close to the bridge a sample of sand was collected by the conductor of this department while returning from Colorado last summer with Royce Phillips of Washington, D.C. The sample collected was a very coarse sand consisting almost entirely of quartz (colorless, smoky, brownish, grayish chalcedony, brownish and reddish jasper) with some flesh-colored to reddish feldspar and black magnetite.

#### **Quartz Sand from Farmingdale, N. Y.**

On Oct. 19, 1952, the conductor of this department made a visit to Farmingdale, Nassau Co., L. I., N. Y., where he noted many occurrences of orange colored sands. On the grounds of the Farmingdale Agricultural and Technical Institute a long trench had been dug and much orange colored sand exposed. A sample of this sand was collected. It was medium grained and consisted entirely of orange colored quartz.

#### **Lake Sand from Lake Ronkonkoma, N. Y.**

Lake Ronkonkoma in Suffolk Co., N. Y., (on Long Island) is a popular summer resort. A sample of sand from the lake was sent us a few months ago by Joel Rosenthal, 116-02 229th St., Cambria Heights, L. I., N. Y. In his letter, dated Aug. 25, 1952, Joel writes:

"I am a young subscriber of R & M and positively think it is the best magazine of its kind on the market.

"Today I went swimming in beautiful Lake Ronkonkoma located on Long Island, and in the enclosed envelope is a sample of sand I collected there. It is composed almost entirely of quartz, I think."

The sample is a dark gray coarse sand. It is composed almost entirely of quartz (colorless, smoky, brown) with a few grains of black magnetite.

#### **Ilmenite Sand from Asheboro, N. C.**

A letter dated March 18, 1953, arrived from C. Henry King, Box 109, Franklinville, N. C. Part of it reads:

"Ilmenite sand is found 4 miles north of Asheboro (Randolph Co.) N. C. The occurrence is on the land to the north and adjacent to the Asheboro Drive-in Theatre. A dirt road turning left at this point is a good collecting spot. Here the rain concentrates the black sand in streaks in the ditches and ruts. A brook nearby has small sandbars during low water that is good concentrates. Nice vial samples can be obtained here."

A sample of the sand was sent also by Mr. King. It is a medium grained black sand consisting chiefly of lustrous black ilmenite with quartz (colorless, smoky) and a very small amount of black magnetite (some grains have a brownish coating).

#### **Limonite Sand from Frankston, Texas**

This sand from Frankston, Anderson Co., Texas, is from a small stream bed. It was sent in by Mrs. Ruby Renfro, 2901 Bomar Ave., Fort Worth 3, Texas.

It is a very coarse dark brown sand and consists chiefly of light to dark brown limonite, varying from tiny up to very coarse particles, with a small amount of black magnetite but whose surfaces are rusty-brown (the magnetite by the way is lodestone and is in small grains); a tiny amount of colorless to brown quartz is also present.

#### **Beach Sand from Neah Bay, Wash.**

Neah Bay in Clallam Co., Wash., is in the Strait of Juan de Fuca which separates Canada from the United States. From the beach of Neah Bay we have received a sand sample that was sent us by Arthur W. Browne, 623 Palo Alto Ave., Mountain View, Calif.

This is a medium grained dark gray sand. It consists almost entirely of quartz (smoky, dark smoky, colorless), with a tiny amount of green epidote and a very tiny amount of black magnetite.

#### **Coral Sand from Barbados**

In the May-June 1952 R & M, p. 282, it was stated that relatives are very important as often times you can call on them for favors. The Editor's distant cousin in Barbados, an English possession in the Caribbean Sea, was again petitioned to supply a sand sample from her island and she did. Mrs. Grace Mayers, Melbourne, Hastings, Barbados, sent us this time a sample of coral sand which comes from Silver Sands Beach, one mile east of South Point, the most southerly point of the island. This is a medium grained

cream colored (sprinkled with red) sand consisting chiefly of coral (white, red, pink, brown) with some sea shells.

"Sand from Silver Sands Beach—a sea sort resort. I think it is called 'Silver Sands' because it glistens in the moonlight." — note on label accompanying the sands.

#### **Lake Sand from Lake Kivu, Belgian Congo**

A few months ago, perhaps in February or March of this year, Edward M. Graf, P. O. Box 1432, Paterson, N. J., was in Africa and he was good enough to collect for us some minerals, sand samples, etc. One of the sand samples collected comes from Lake Kivu in eastern Belgian Congo. Lake Kivu (5,000 feet above sea level), island studded and of great depth, is considered to be the most beautiful lake in Africa. The sand comes from the beach at Kisenyi on the north-eastern tip of the lake. It is a very coarse dark gray sand consisting chiefly of colorless to smoky quartz and black (also red) pitted opaque volcanic "glass"; some of the black volcanic glass contains small greenish masses of olivine. A few grains of black ilmenite also present in the sand.

#### **Beach Sand from Corfu Island, Greece**

Corfu is a Greek island in the Ionian Sea (the most northerly of the Ionian Islands). It is about 38 miles long with a width varying from 3 to 20 miles. The island is highly mountainous. From two beaches on this island we have sand samples that were collected for us by John J. Lavranos when he formerly resided in Athens, Greece, he now resides in South Africa (P. O. Box 10257, Johannesburg).

One sample comes from a little beach called Katelani in Chlomos on the east coast. It is a dark gray medium grained sand consisting chiefly of quartz (smoky, brownish, colorless) and sea shells (white, gray, brownish).

The other sample comes from Nissos (or Issos) beach on the west coast (near the Korissia Lagoon). It is a fine grained brown sand consisting chiefly of quartz

(smoky, brownish, colorless) and sea shells (chiefly brown, with some white).

#### **Lava Sand from Iceland**

Last December we received a letter, dated Dec. 6, 1952, from M. L. Peterson, 933 N. Longfellow St., Arlington, Va. It read:

"I am forwarding under separate cover a cobble of basaltic lava which I picked up at an airstrip at Keflavick, Iceland, when we landed Nov. 19, 1952, for an hour's rest and refueling on the flight back to the United States."

This was a dark gray deeply pitted mass—a large round cobble. But the interesting part of the cobble was that its cavities were full of sand which was easily shaken out. This turned out to be a dark gray medium grained sand consisting chiefly of dark gray lava with some black magnetite and a tiny amount of smoky quartz.

Keflavick is near the southwestern tip of the island, (on Faxa Bay), a few miles west of Reykjavik, the capital and largest city.

#### **Two Sands from Mauritius**

Mauritius, an island in the Indian Ocean, is 550 miles east of Madagascar. It is an English possession whose area is 720 square miles; capital is Port Louis.

Miss Adi Redman, Geological Museum, Public Library, Johannesburg, South Africa, sent us two sand samples that were collected from a river from Mt. Chamarel in the southern part of the island.

One sample is a muscovite sand, brownish, silvery and medium grained. It consists chiefly of silvery muscovite with some quartz (brownish, smoky).

The other is a river sand, orange colored medium grained. It consists almost entirely of pale brownish quartz with a few flakes of silvery muscovite (some are orange stained).

#### **Beach Sand from Durban, South Africa**

Durban is the chief port of Natal, Union of South Africa, on Durban Bay, at the mouth of the Umgeni River. The city has extensive beaches, one of which is the Ocean Beach which a few years ago was a stretch of sand dunes but has been converted into the chief attraction of Durban. Ocean Beach is on the Indian Ocean. From this beach we have a sand sample that was collected for us by Edward M. Graf, P. O. Box 1432, Paterson, N. J., while on a visit to South Africa during the early part of this year.

The sample is a medium grained brown sand consisting chiefly of colorless quartz, with minor amounts of pink garnet, black magnetite, green olivine, and lustrous brownish sea shells.

#### **Glacial Sand from Sweden**

From Roneby, Blekinge Province, Sweden, we have a sample of glacial sand that was sent us by Gerhard Koppen, Skanegatan 3, Nybro, Sweden. This is a medium grained brownish sand consisting of pinkish to brown feldspar, clear to smoky quartz, with a little black magnetite and a smaller amount of black biotite.

#### **Shell Sand from Venezuela**

Chichiriviche, in the eastern part of Falcon State, in northern Venezuela, is on the Caribbean Sea. The town has an extensive beach consisting of calcareous sands which can be used for making cement; apparently the supply is inexhaustible because a good friend of R & M, Ellis C. Soper of Franklin, N. C., an engineer specializing in the building of cement plants, has already started operations. A letter, dated May 16, 1953, from Mr. Soper reads:

"I have just returned from Venezuela where I have begun work on another cement plant.

"I shall send you a sample of sand from the beach (at Chichiriviche) on the Caribbean Sea from which we will make cement and over which several engineers from here, France and Venezuela

walked and never thought to investigate."

The sample is a very coarse cream colored sand consisting entirely of sea shells (cream, white, pink, brown, some red, a few black, etc.) Some of the shells fluoresce yellow under the long wave lamp.

#### **Lake Sand from Loch Laggan, Scotland**

Loch Laggan in Inverness-shire, Scotland, is 7 miles long, from one to two-thirds of a mile wide, and is flanked by lofty mountains. From a beach on this lake we have a sand sample that was sent us by Sandy Ramsay, 1015 Aikenhead Road, Kings Park, Glasgow S4, Scotland. The sample is a coarse gray sand consisting of quartz (colorless, smoky, white), silvery muscovite, pinkish feldspar and a tiny amount of magnetite.

#### **Quartz Sand from Bananera, Guatemala**

The following interesting letter has arrived from Clyde L. Wilson, M.D., 16 Mont Alto Drive, Jamestown, N. Y. It is dated April 17, 1953, and reads:

"I have just returned from a trip to Central America where I picked up a couple of samples for you; these are sent you under separate cover.

"One sample was secured at Bananera, Guatemala. It, I am afraid, is not a very good sample. I tried very hard to find some sand around the beach at Puerto Barrios, the principal seaport on the East Coast of Guatemala, but if there was any sand it was so covered with filth and dirt that none could be obtained. However, my family took a trip inland to Bananera, which is a small village and a banana plantation of the United Fruit Company near the Managua River about 65 miles from Puerto Barrios. The soil is quite sandy and this sample was picked up along the road. It was the best that could be obtained and I hope that it will be of some interest to you."

We are glad to have the sample. It is a very coarse gray sand consisting chiefly of smoky and milky quartz (some brownish also) and gray clay which coats most

of the grains. Black magnetite and a few silvery flakes of muscovite are also present.

#### **Beach Sand from Tela, Honduras**

Dr. Wilson's letter of April 17 is continued as follows:

"The second sample was taken from the beach at Tela, Honduras. This sand looks very beautiful to me although I have not looked at it under the microscope. It was clean and of the two I am sure you will find it by far the better.

"While in the Canal Zone I visited with Mr. Frank Wagner at Diablo Heights. He wanted to know if I had ever met the Editor of R & M and I told him that I was very sorry I had not but I hope to some time. He and Mr. Burton Davis of Cristobal do quite a lot of rock hunting and between the two of them they fixed me up with a nice box of minerals with which I am sure I am going to have a lot of fun."

Tela is on the Caribbean Sea and the beach sample received is a medium grained gray sand consisting chiefly of quartz (colorless, smoky, brownish) with pale green epidote, black magnetite and a small amount of pinkish garnet.

#### **Rock Crystal Sand from Salisbury, N. Y.**

A letter dated April 7, 1953, comes from Peter Krump, Box 211, Salisbury Center, N. Y. It reads:

"Am enclosing some sand that I picked up on Diamond Hill north of Salisbury (Herkimer Co.) This hill is located a couple of miles back of my place and I usually go there to pick up "diamonds" (limpid rock crystals) for my friends. While I was there last, I thought of you and so picked up some sand which is herewith enclosed."

The sample received is a dark brownish-gray coarse sand. It consists chiefly of limpid rock crystals from tiny up to ¼ inch, dark brownish-gray clay, tiny grains of smoky quartz, with a tiny amount of black magnetite.

A second letter from Mr. Krump, dated May 4, 1953, reads:

"Received your letter of the 18th and was very glad to hear from you. I did not think much of the sand sent you but am glad you liked it. I have seen sand that was all black magnetite as well as some that was pure white. I am not an old man yet—am just past 40—and I still get over the ledges quickly as I did one time when a snake stuck his head out in my face—did I move then!

"Diamond Hill is about 2 miles in back of my house and below it is a quarry that is quite interesting for "diamond" hunters: I am not interested in "diamonds but go more for mineralized rocks.

"If you ever decide to come up this way I will be more than glad to take you around to some of my stamping grounds. To the north of my place, a couple of miles, are the iron mines; to the east are caverns, gold mines, gravel pits, the old military trail, the Indian hunting grounds, etc.; to the west are limestone quarries and "diamonds"; to the south is the Mohawk Valley that is really interesting.

"If I had the opportunity I could give rockhounds that go on excursions in bands or groups many interesting sites."

#### **Something to Shoot For!**

Editor R & M:

Congratulations on your new cover. Seeing a picture of a truly fine mineral specimen gives one something to shoot for. Keep up the good work.

A. T. Morawski  
185 Blaine St.,  
Fairfield, Conn.

June 11, 1953

#### **Very Wisely Composed!**

Editor R & M:

Many people criticize your magazine—why? It is very wisely composed; no continued on page so and so; no advertising mixed with the reading material to distract attention.

I'm like other rock collectors, I read the entire first copy in one night including advertising. The sand department surprised me. I had never made a sand collection, but I had examined many sands trying to trace mineral deposits, then filed the data and discarded the sand, but now I have quit discarding sand.

George H. Dean  
Box 326  
Oak Hill, Fla.

April 21, 1953

# Club and Society Notes

**Attention Secretaries**—Please submit neat copies. Give dates and places of meetings. Check names for correct spelling.

## East

### Mineralogical Society of Pennsylvania Field Trips

A field trip to Eureka quarry attended by 134 members and friends on April 12 was a complete washout because of a heavy rain.

### Annual Meeting and Field Trip at Blue Ball

The annual meeting and field trip at Blue Ball, on May 3 was a huge success. Mr. John C. Showalter, "prince of quarry owners," repeated last year's treat by feeding the gang of 140 members and friends with innumerable quarts of ice cream, cases of white and chocolate milk, orange juice, cigars, cans of pretzels and pounds of cookies. This unprecedented show of hospitality was experienced by us last year when we were Mr. Showalter's guests at our annual meeting, but at that time it seemed too good to be real. Now we are convinced that it actually happened and hold it in shining contrast to that fact that more and more quarries in neighboring states are being closed to collectors.

Swapping was fast and profitable especially for Jim Hart of Bethlehem whose specialty is radio-active minerals.

### Lapidary Meeting and Field Trip

Fifty members of the Lapidary section of M. S. P. were guests of George and Helen Papashvily at Etruba farm, their home in Quakertown, Pennsylvania, on April 26.

Member, George Papashvily co-author of the delightful books *Anything Can Happen* and *Thanks To Noah* has put aside his pen for a chisel and is doing some fine sculpture in native stone at his spacious studios.

After a short meeting our host gave us an interesting talk and showed us around.

Helen Papashvily proved to be a charming hostess and while their lovely colonial home and George's artistic accomplishments fed our aesthetic senses, she assuaged our hunger with a bewilderingly delicious variety of cakes and sweetmeats.

### Paleontology Section—Field Trip to Maryland

A party of 32 members and friends of M. S. P.'s Paleontology section invaded the sunny south, led by Dr. Arthur Hopkins on a

two-day field trip to Plum Point and Kenwood Beach, Maryland, on May 23 and 24.

We wish to thank our hosts, Byron Ashbough, Director of Education of the Chesapeake Biological Laboratory, for his interesting outline of the Solomon's activities of the Maryland Department of Conservation, Research and Education; biologist, Romeo Mansuet for his most interesting illustrated lecture on "The Natural History of Calvert County"; biologist, Rudy Scheltema for his sketch of the "Miocene fossils of the Calvert Cliffs" and all the members of the staff for allowing us to stay in their comfortable dormitories.

We collected Shark's teeth, whale vertebrae and ribs, corals and molluscs, all approximately 15,000,000 years old.

### New Appointments

Dr. Arthur Hopkins of Merion, newly elected President; Mrs. Gene Belz of Lansdale, Vice-President; Mrs. Edna Hunt of Philadelphia, recording secretary and Leonard J. Duer-smith of Columbia was elected to the executive committee for a term of 4 years.

### Progress and Accomplishments

Dr. Jacob Freedman, Franklin and Marshall college, associate professor of Geology and M. S. P. member, has been named by the Foreign Section of the U. S. Geological Survey on the Point Four Program to "investigate and evaluate mineral deposits of economic value" in the ancient land of the Hebrews. His findings will determine the amount of the U. S. Government Point Four Funds to be given the new Israeli state for developing the mineral deposits. Dr. Freedman and his family will remain in Israel one year, just half the time required of government overseas assignees. Because of college commitments, Dr. Freedman made the unprecedented request for a reduction of the period. He is the first American scientist receiving such an appointment to Israel.

### Junior Section

A Junior section overnight camping and collecting trip to French Creek Park and the old French Creek Mines on April 25 and 26 was a huge success crowned by the discovery of a large pocket of the rare cobalt bloom, erythrite.

Young Jimmy Irvine structured his reputation as a lecturer when he was speaker of the evening of the Norristown Y.M.C.A. Men's





Photo by Harold Evans

Annual Meeting Mineralogical Society of Pennsylvania at Blue Ball, Penn.

Club on April 22. He displayed a collection of fluorescent and other type minerals.

Gerry & Will Shulman  
Co-Chairman Publicity Committee  
113 Huntington Terrace,  
Newark 8, N. J.

#### **New York Mineralogical Club, Inc.**

The April meeting was held at Schermerhorn Hall, Columbia University, on April 15. Mr. Leo Yedlin presided, called the meeting to order at 8:05 p.m.

The minutes of the March meeting were read and accepted. The second reading of the proposed amendment to the constitution was accepted as part of the minutes.

Two new members were elected, Mr. Hugh Laubheimer and Mr. Gordon Price.

Nominations for officers were closed and a single ballot was cast to elect the slate as prepared by the nominating committee.

The excursion committee reported on a planned trip to the Ringwood Mines near Sloatesburgh for the 3rd Sunday in June.

Mr. Ted Schoen displayed interesting radiographs of the entire Frondel series of radioactive minerals.

Dr. Arthur Montgomery gave a fine talk on the Minerals of the Harding Mine, New Mexico, illustrated with excellent color slides and followed by a question and answer period.

The speaker was given a rising vote of thanks and adjournment followed at 10:53 p.m.

Victor Pribil  
Secretary  
47-18 37th Street  
Long Island City 1, N. Y.

#### **Geological Section—Buffalo Society of Natural Sciences**

The Geological Section of the Buffalo Society of Natural Sciences meets on the first Friday evening of every month in the Buffalo Museum of Science. All persons interested in any branch of Geology are invited to attend.

At the April 3rd Meeting, the Section heard Mr. Raymond L. Kistler of the Buffalo Weather Bureau speak on Modern Weather Forecasting. Illustrated with Kodachrome slides, the talk followed up a talk given a few months previously on Prehistoric Weather.

Prof. Edward J. Buchler, Asst. Professor of Geology at the University of Buffalo, was the featured speaker at the May 1st Meeting. The Subject of his Kodachrome Illustrated talk was Corals and Coral Reefs.

Clifford J. Awald, Secretary  
The Geological Section  
Buffalo Museum of Science  
Buffalo 11, New York

#### **Queens Mineral Society**

The Queens Mineral Society had two very interesting meetings since publication of the last R&M. The Club is getting new members and is proud of it. This is partly due to the very interesting topics of discussion set up by the program Committee and the guest speakers who give their time to make it an enjoyable evening.

In April, Dr. A. Wellnitz of the Department of Geology of Brooklyn College was guest speaker at the Club's annual dinner. The subject of her talk was North Africa and some of the colored slides could easily have been entered in a photography contest. At our May meeting, members had an opportunity to learn all about Ultra Violet Lamps as Mr. Wm. Wellman was speaker of the evening and gave details and cost for the construction of various types of U.V. lamps. Mr. Wellman mentioned an interesting fact, that fluorescence was first discovered 350 years ago by an Italian cobbler and since then, as all know, fluorescence plays an important role in modern living. Mr. Wellman then explained the meaning of wave length, angstrom and speed.

Another field trip has been scheduled, this one will take place on June 28th to Gillette Quarry, Haddam Neck, Conn., and the next meeting of the Club will be in September as the club does not meet during the summer months."

Miss Marie McKay  
111-20 106th St.  
Ozone Park, L.I., N.Y.

#### **Mineralogical Society of the District of Columbia**

The regular meeting of the Mineralogical Society of the District of Columbia was held in Room 43 of the U.S. National Museum, on May 15, 1953.

The meeting was called to order at 8:15 p.m. with Vice-President M. C. Gleason presiding.

The minutes of the previous meeting were dispensed with in the interests of our Canadian visitors who were with us for the weekend. Mr. Gleason introduced these visitors and thanked Dr. William F. Foshaag, Dr. Switzer and Mr. James Benn of the U.S. National Museum who had so generously shown them the Museum during the day.

Mr. B. J. Chromy, Chairman of the Committee on the Canadian visit told of the plans for coming Saturday and Sunday of this visit. He also had provided printed programs and maps for them which had been prepared by himself and Mr. Gleason. An announcement was made of a dinner at the Dodge Hotel at 8 p.m. Saturday, May 16, 1953 following which a swap material session would be possible as well as a film program. Further details were discussed about the coming field trips and some rearrangements were made. Mr. French

Morgan was to lead the trip to Fort Washington, Md., at 8:30 a.m. Saturday morning for selenites. The Line Pit, Pa. trip was canceled. Mr. William Halliday explained the proposed trip to Fishers Gap, Va., for Sunday. All interested were to meet at Panorama on Sky Line Drive, Va., at 10 a.m. Sunday. Mr. Halliday would meet the group here and all would proceed to the "unakite" area where Mr. Tony Bonanno would join as assistant leader. The timing proposed would finish the unakite area by noon and a further stop would be made on return at the Old Copper Mine on Stony Man Mountain, Va. Mr. Halliday sketched the routes and offered to mark maps for drivers of each car.

A discussion ensued on the other localities that had been proposed for the same day. It was decided that a second trip would be scheduled for Sunday to the Frostburg, Md., area for siderite in which many of our visitors were interested. Mr. Carl Gerber offered to lead this trip and gave a short description of the area and showed samples of the material to be found there. He also showed samples of the selenite material to be found at Fort Washington, Md.

Mr. Stevenson, President of the Walker Mineral Club of Canada, displayed the Canadian material that had been brought for swapping.

Mabel Sterns told briefly of giveaway fossil material that she had brought which had been secured at Westmoreland State Park, Va.

Bill Foster spoke of giveaway material that he had brought in for the club. Fluorite from Cave-In Rock, Illinois, and barite from the Potosi, Mo., area.

Mr. Bonanno and Comdr. John Sinkankas, U.S.N., showed Line Pit, Pa., material that they had brought for display.

The speaker of the evening, Dr. H. P. Ugster, of the Carnegie Institute, was introduced, his subject "ALPINE MINERALOGY". The speaker, himself a Swiss, led most charmingly into his talk by disclaiming a penchant for cheese making, watch making, or yodeling but avowing a deep interest in skiing, mountain climbing, and mineral collecting. He showed a map slide which gave us all an excellent introduction to his talk by showing clearly the Alpine Structure—geologically—and its relation to the other major mountain ranges of the world. His greatest attention in his talk was given to the cleft minerals or those found in vugs. He named twelve leading minerals and gave a good history of their formation, collection, and development. Dr. Ugster pointed out that the clefts were always horizontal being formed by vertical pull.

The cleft minerals named and discussed were:

Quartz, Adularia (orthoclase or feldspar), Albite, Muscovite, Chlorite, Epidote, Calcite, Amiant (Byssolite), Spence, Rutile, Brookite, Hematite.

It was pointed out that smoky quartz was always found in the high clefts seldom in the valley. A booklet by Niggli entitled "VOM WACHSTUM DER KRISTALLE" was passed around which contained among other things many excellent illustrations of the minerals under discussion.

Dr. Ugster concluded his very excellent talk with a series of colored slides showing the formations in the Alps and the area likely to contain the clefts.

Tom Woodward, Jr., of Alpine, Texas, now on duty at Fort Belvoir, Va., was introduced.

The meeting was adjourned after a further roundup of the coming field trips for the week-end.

Mrs. Kathryn D. Gerber  
Ass't. Sect. Treasurer

### North Jersey Mineralogical Society

The May meeting, held in Paterson Museum, was devoted to the society's annual exhibition and discussion of lapidary arts.

Several members of the society have elaborate basement workshops in which they fashion many beautiful things from rough pieces of mineral and rock. They have also invented and manufactured much of their machinery, and enjoyed the opportunity to exchange ideas and experiences. Attendance was 76.

Gustave and Alypia Wendt displayed cases filled with unset gems of many forms and materials. One case contained faceted aquamarine and golden beryl from Connecticut; quartz of several kinds, clear, citrine, smoky and amethyst from various locations; garnets from New York and elsewhere. They also showed polished jasper, serpentine, chrysocolla, agate, variscite, prehnite and jade cut en cabochon and in free forms.

William Pfeiffer described his methods of forming large decorative pieces such as book ends and ash trays, and in response to questions, explained a process he has developed for hollowing out the trays in a comparatively short time.

Edwin Judd exhibited an arrangement of cast bronze cups he has devised for grinding spheres, which he deems an improvement over the old method of using an iron pipe. He displayed a beautiful crystal ball about 2½ inches in diameter and a smaller sphere of quartzite to prove his point. He showed a polarizer which he had made, along with other pieces of precision equipment for determining the worth of a rough piece of mineral. He exhibited several specimens of silver jewelry set with gems he had fashioned, as well as an extensive suite of unset stones.

Scott Staples told of making visits several years ago to lapidary shops in New England and of the help he had received in learning their methods. He later assembled his own equipment and now does a large amount of cutting and polishing. He displayed some large facet-cut gems, among them citrine and smoky

quartz from Brazil and rock crystal from Madagascar. He also explained how to drill gems.

Mrs. Graham Rendell described her experiences in working with star quartz. She had on display some jewelry of original design for which she is famous. Among the unusual pieces were a gold necklace set with small jade fish of many colors; a filigree gold necklace set with rubellites; silver earrings mounted with rehnite, and other pieces.

Prior to the lapidary exhibition Walter Dallery reported on the April field trip to the old zeolite locations in the New Street quarries of Paterson. The local club was joined by the Newark Mineralogical Society for the occasion, some seventy carloads of collectors turning out. Harold Weiman and George Stevens of the local society displayed large and handsome specimens of satiny white pectolite; other members had good luck in finding prehnite.

William C. Caspersen, Curator of the Paterson Museum, reported on attending with Mrs. Caspersen, the April meeting of the District of Columbia Mineralogical Society. The club meets in a room in the National Museum building. About sixty members attended. This club is following a practice formerly carried on in the local club, of having a fifteen-minute study period prior to the business meeting and program. Dr. George Switzer of the National Museum staff gives talks on crystallography and the Washington club members have provided themselves with the revised Dana's book for beginners in mineralogy.

The guest speaker of the evening was John Schairer of the Geophysical Laboratory in Washington, whose subject was "Connecticut Mineral Localities". While at Yale he was an eager collector, and wrote an extended guide book for Connecticut collectors. That was many years ago, but he believes the old quarries will still yield good specimens if one knows what he is looking for and will work for it, Mr. Caspersen reported.

Edward De Roo, chairman of the North Jersey Society's outing committee, outlined plans for the May collecting trip to be taken to Hadam Neck, Conn.

Four new members were admitted to the society.

Announcement was made that the June meeting will be a joint one with the Minsi Archaeological Society, when Edward Graf, a member of both organizations, will talk on his recent two-month trip through Africa and will show slides and motion pictures he made en route.

Marian Brown Caspersen  
Publicity Chairman  
9-11 Hamilton Street,  
Paterson, N. J.

## Mineral Society of Glens Falls, N. Y.

A meeting of persons interested in the earth sciences was held April 9, 1953, and the "Mineral Society of Glens Falls, N. Y." was formed. Our community and its environs comprise our present membership of twenty and an additional Junior membership of five. The purpose of our simplified organization is to hold the existing group together and to receive and establish contacts from without. Mr. Elmer B. Rowley who taught Mineralogy in adult education classes for three years is president with Jerome F. Lapham secretary. Two regular monthly meetings are to begin September and field trips will comprise the summer months activity.

Programs for the regular meetings will include discussion on earth science-geology-mineralogy-gemology, and cutting and polishing will be encouraged.

Geographically, Glens Falls is located halfway between New York City and Montreal, Canada, on U. S. Highway 9 and any rockhounds who pass this way are invited to contact members of the society. Several collecting localities are within a short radius and in the event of inquiries our listing of such information is available to anyone.

Jerome F. Lapham, Sec'y.  
21 Grant Avenue,  
Glens Falls, N. Y.

## Mid-West

### Rocks and Rills

(Vermillion, S. D.)

Last October we started a rock club in Vermillion—it has proved very successful—not only people from town belong but we have them from surrounding towns and even other counties.

Most of the Geology faculty belong and have furnished speakers for our meetings, the curator at the Museum belongs and has given us fine lectures—then a diamond expert from Sioux City came and showed movies and gave a talk on diamonds.

The name of the club is Rocks & Rills:  
President, Mrs. Warren M. Lee  
Vice President, Bruce Greenwald  
Secretary, Mrs. Elbert Harrington  
Treasurer, Mrs. A. L. Haines

We are very lucky the State Geological Survey is located here, because the geologists not only give us their time and knowledge but all the mineral samples are here.

Mrs. Warren M. Lee  
424 Lewis  
Vermillion, S. D.

### Chicago Rocks and Minerals Society

The annual election of the Chicago Rocks and Minerals Society was held June 12, and the following officers were elected:

President, Helen L. Cooke (Mrs. G. Cooke)  
Vice President, Alexander Leighton  
Recording Sec., Margaret Gibson  
Corresp. Sec., Marilla Towne (Mrs. Claude Towne)

Treasurer, Ralph Alberts  
Curator-Historian, Selma Jenner  
Editor of PICK & DOT STICK, Laverne Thomas

Associate Editor, Dorothy Gleiser

The new officers will take over in September.

Guest speaker at the June meeting was Mr. E. A. Williams, from Elkhart, Indiana, a professional lapidary who shared in the great lapidary accomplishment, the jade window in the North Shore Baptist Church, in Chicago. The only one of its kind in the world, the window was the gift of the late James Lewis Kraft (author of ADVENTURE IN JADE) to the church which he had served for over 40 years, and was unveiled only a few months before his death.

For two years Mr. Williams worked on the material for the window — slabbing, cutting, lapping, polishing, and finally, on the leading. During that time various problems arose, such as obtaining enough jade of a certain color that large enough pieces could be had but without fractures, and of an even translucency, and then surfacing them to a finished thickness of three millimeters. The illness of both Mr. Kraft and Mr. Williams further complicated the work.

The audience enjoyed Mr. Williams' amusing account of Western desert and mountain field trips, including collecting at Priday Ranch.

Dorothy H. Gleiser  
1066 Griffith Road  
Lake Forest, Ill.

### Iowa Gem and Mineral Society

The Illowa Gem and Mineral Society of Davenport, Iowa, held their annual Gem and Mineral exhibit in the Davenport Public Museum and to accommodate the large attendance it was necessary to keep the museum open seven days a week during the entire month of May while the exhibit was in progress and also several evenings to accommodate special groups.

As a special feature, tried for the first time this year, Mr. Irving W. Hurlbut, president of the club, was available and made all arrangements in advance, to conduct an explanatory tour through the exhibit of any special groups such as schools, clubs, various civic organizations and lapidary clubs. The idea was such a success that it will be repeated in the future exhibits of the club.

Also another new idea which was well received by the public and had a large and interested audience was the fact that on each Sunday afternoon, the four directors of the club, brought in their own equipment and set it in operation and made a complete gem, from sawing the rough chunk- grinding, polishing and even mounting the finished specimen in a suitable silver setting such as a ring, brooch or pendant.

The directors who gave this fine demonstration and also explained each step were: Mrs. Edwin Ahler of Rock Island, Illinois; Mr. Charles Adams of Rock Island, Illinois; Mr. Alonzo Williams of Hampton, Illinois and Mr. Jerry Keefe of Davenport, Iowa. This was very well done as these four men are very proficient and are considered the finest amateur lapidariest in this locality.

### Rochester Earth Science Society

The Rochester Earth Science Society held its annual meeting on May 11. Hazen Perry of Minneapolis was our speaker. He talked on his personal recollections as a rockhound and showed beautiful kodachromes of rock hunting trips. New officers—President, Harold Whitling, Vice President, Dr. Henry Woltman, Secretary-Treasurer, Mrs. Leon Gates., and Corresponding Secretary, Mrs. Dana Rogers, all of Rochester, Minn.

Mrs. Dana Rogers  
Corresponding Secretary  
520 10½ St., S.W.  
Rochester, Minn.

## South

### Bexar County Mineral Hobby Club

Our group of fellow rockhounds met on March 20th and began laying the foundation for a new club in San Antonio. The name of Bexar County Mineral Hobby Club was approved and a Temporary President, Secretary, Treasurer, Field Trip and Entertainment Committee has been appointed to act until our initial election to be held in June.

The year for the club will run from July 1 to June 30 and charter membership is open until June 30, 1953. Club dues are \$2.00 annually. Meetings are held on the second and fourth Fridays of each month, the first being for business matters and the second for social programs. Our meetings are held in the homes of those members desiring to entertain us and we plan to have one field trip a month. A door prize will be had at each meeting and swapping of rocks will always be in order.

At the present time, we have 27 charter members and have had four meetings and one field trip. The Constitution and By-Laws have been approved, printed and distributed to club members. The club emblem has been decided upon and membership cards will be available to members at the first meeting in July.

Visitors and correspondence will always be welcome and information may be had by writing to me for meeting place and time.

Mrs. Arthur S. Imell, Jr.  
Temporary Secretary  
838 Clower Street  
San Antonio 12, Texas

## West

### Brawley Gem and Mineral Society

The following is a clipping from THE BRAWLEY NEWS of May 4, 1953, which may be of interest to your readers. Living in a desert area where the weather at this time of year is almost ideal, we tried the experiment of having an outdoor show where amateurs could expand their collections by swapping or purchase or dispose of their surplus (which we all accumulate) and professionals replenish their stocks from local materials which are varied and plentiful. We were very much pleased with the results, and are now planning to make it an annual affair, so watch for our announcements next spring.

Glenora Barfell, Secretary  
736 B. Street  
Brawley, Calif.

### MEXICAN TRIP ENDS ROCKHOUNDS' SHOW

#### 2000 view exhibits during 3-day event here; 150 on Mexico Journey

Over 150 rockhounds in 42 cars took part in the rock-hunting trip to Mexico yesterday which climaxed the three-day Rock Fair and Trade Days held here Friday, Saturday and Sunday in which about 2000 people viewed the exhibits of desert gems and minerals displayed on the Plaza.

Yesterday's motorcade to Pinto mountain, about 40 miles west of Mexicali, was escorted through the capital city of the Mexican state of Baja California by a police motorcycle escort headed by the secretary-manager of the Mexicali chamber of commerce, William McAlpin.

#### GUARD CARS

Three motorcycle policemen remained with the rockhounds and escorted them right up to the mountain where the police served as official guards for the cars while the party was shuttled over the remaining 4½ miles to the hunting grounds by desert-worthy jeeps and command cars.

About 15 cars full of rockhounds from the coastal areas met the motorcade in Calexico and still other cars of rockhounds joined up at a cutoff 35 miles west of Mexicali.

Mr. and Mrs. Frank Thomas, Idaho Falls, Idaho, received a 10-pound sack of Holly sugar as the award given by that company to the rockhound bringing rocks from the farthest away point.

A large fossil, apparently the leg and foot of some type of dinosaur, was discovered on the trip by Bob Adams, one of the founders of the Brawley Historical Museum society, and was brought back to Brawley.

It is expected that exact identification will be made soon and the specimen will be displayed to the public.

### GIVE APPROVAL

All of the rockhounds were unanimous in their approval of the Trade days and the trip to Mexico and expressed the hope that it could be made into an annual affair.

Roy Rand of the Brawley Gem and Mineral society, which sponsored the three-day affair, expressed his thanks to the Brawley city employees and the chamber of commerce who proved very helpful and cooperative in allowing the rockhounds the use of the city hall area for their displays.

### Sacramento Mineral Society

The April 24 meeting of the Sacramento Mineral Society featured Mr. M. D. Taylor of the Stockton City School Department who spoke on faceting. This was accompanied by diagrams and a practical demonstration in finishing two stones.

### May Meeting

Mr. Chester Collins, geological engineer for the U. S. Geological Survey, spoke at the May 22 meeting of the Sacramento Mineral Society. His subject was "Aids and Methods Used In Prospecting For Ores And Minerals". Mr. Collins demonstrated his talk with detecting equipment.

A pot luck supper was served.

Paul H. Steele

### Rio Grande Rock Club (Monte Vista, Colorado)

This is to let you know that the new officers for the Rio Grande Rock Club, Monte Vista, Colorado are:—

President, Gene Sutherland, Monte Vista, Colo.

Vice President, George Richardson, Del Norte, Colo.

Secretary & Treasurer, Lilah Brown, Alamosa, Colo.

Lilah Brown, Sec'y.  
72 Cascade Ave.  
Alamosa, Colo.



## WYOMING STATE CONVENTION & SHOW

The show and convention of the Wyoming State Mineral & Gem Societies held in Cheyenne, Wyoming, June 5 and 6, 1953, was an outstanding success from every standpoint. The show committee had the light cables, outlets, tables and signs all in place and ready for the dealers and exhibitors by June 3, and a good thing it was for on the morning of June 4, trucks, cars and exhibits began pouring in. The exhibitors really did themselves proud! There was 500 linear feet of non-commercial exhibit space completely filled and extra tables had to be set up to hold the overflow. The exhibitors were loud in their praise of the lighting arrangements and the fact that no cases that had lights were without outlets. It was one of the best lighted non-commercial and non-competitive exhibit displays in the country.

The quality, workmanship and artistic arrangements of the displays amazed the visitors and brought forth many "Oh's" and "Ah's" and compliments. . . much to the delight and satisfaction of the exhibitors. One particular thing which made the exhibit cases stand out was the prevalence of pastel painted cases, both inside and out, to complement the beauty of the materials displayed, whether minerals, crystals, cabochons, artifacts or jewelry.

It has always been the contention of the general chairman that more and better displays would be brought to the shows if the competitive angle were eliminated and the Wyoming show certainly proved the point. The displays of rare agate, wood casts with amethyst xl centers, petrified wood, gold collections, hand-made jewelry, Wyoming jades, Wyoming fluorescents, rock novelties, minerals and artifacts were out of this world. Most important of all, however, was the fact that everyone went home happy with the show and from the new friends made.

The success of a mineral and gem show depends on the quality and quantity of the exhibits shown. Here a world of thanks goes out to those clubs and individuals in the State who helped by sending grab bags and bringing their many beautiful collections to exhibit. Also many thanks to the large number of out-of-state clubs and individual exhibitors who drove many hundreds of miles bringing their own cases and large displays and bearing the expense themselves for the enjoyment of the show visitors.

The dealer response was most gratifying. There was 300 linear feet of commercial space filled with cutting materials, beautiful xls, minerals and lapidary machinery, for the rockhound to browse over and buy.

Many thanks go to the hard working dealers for their participation and for making it possible for the rockhound to buy material he could not otherwise obtain. Next to the non-commercial exhibitors, the dealers rank second in making the shows most enjoyable. The dealers

also praised the superior quality, workmanship and arrangement of the exhibits.

There were 22 beautiful door prizes of hand-made jewelry—Wyoming jades, xls, and beautifully polished Eden Valley woods—all donated by the members of the Cheyenne Club.

The swap table and the grab bag table were two very popular corners, for what true rockhound can resist a bargain or a chance to swap? The Pebble-Pups, ranging in age from 4½ years to 12 years old, not to be outdone by their elders, had 10 cases of well-arranged displays of minerals, agates, fossils, xls and artifacts in light painted cases, and were they ever proud and happy over the compliments they received.

There were 1,000 registrations from 16 states to the two-day show.

The general chairmen feel that it was the one hundred percent cooperation of the convention committee and the club members which helped to make the Cheyenne show one of the best in the country.

Mr. & Mrs. R. J. Laughlin  
General Co-Chairmen  
204 E. 3rd Ave.,  
Cheyenne, Wyoming

## Sweet Home Rock and Mineral Society (Sweet Home, Oregon)

Sweet Home (Oregon) Rock and Mineral Society held its fifth annual show on Saturday and Sunday, March 14 and 15, and in conjunction with this, the fifth annual banquet on Saturday night. The show was viewed by nearly 3000 persons, some from distant points, but the majority from Willamette Valley towns.

Exhibits were on display from various parts of Oregon with a wealth of local materials shown, along with choice pieces from all over the world. Several dealers were present with wares displayed for sale.

The banquet was served to 173 people with special guests representing other clubs including the Oregon Agate and Mineral Society of Portland; the Willamette Gem Club of Salem; the Albany Rock and Gem Club of Albany; the Rock and Gem Club of Corvallis; the Eugene Mineral Club; the Coos County Mineral and Gem Club, of North Bend; and the Salem Geological Society.

The speaker of the evening was A. W. Hancock of Portland, president of the Oregon Agate and Mineral Society. Mr. Hancock talked about the Clarno area of the John Day fossil country in Central Oregon, using a geological "fantasy" to describe the formation of fossil beds dating back to 60 million years.

Reverend B. Ross Evans served as banquet toastmaster, and Junior Sweet Home club members, Larry and Phil Crawford, furnished dinner music playing piano and accordion.

New Sweet Home Rock and Mineral Society officers installed during the banquet were Mel Crawford, president; Lenore Keeney, who

served as president in 1952, vice-president; and Alice Anderson, Secretary-treasurer.

Novel sign post favors displaying miniature rock specimens were placed at each plate for souvenirs. Three fountain pen sets with bases made of Sweet Home petrified wood were presented as door prizes. These were made by local club members.

Mrs. Harold Derby  
MR-1174—4th Ave. No.  
Sweet Home, Oregon

#### **Pacific Mineral Society**

Mining Engineer Norman J. Whitmore, addressed our group in May and assured us that new mineral deposits are being discovered, often by amateurs. He displayed samples which he had assayed recently, to prove his point.

Gold, titanium, rare earths, copper and silver were included in the list. He also advised us to study the sky line, for rhyolite may be suspected in the jagged outline. The dome type may indicate granite and gold. The high temperature beryl may lie under the lava or basaltic cap. A smooth shore line means a rising coast.

Vegetation is something to observe, the shales and granitic types vary definitely.

He listed the minimum equipment necessary on a modern prospecting trip, from boots to bed, and from Geiger counter to the horn speen. His quantigraph is a simple and modern instrument valuable in the field.

The Mineral Society will take its annual trip to Crestmore quarry this month where over 40 common minerals may be obtained, and many of the rare ones.

Mr. Jack Lasley displayed some large and exceptionally beautiful crystals, from his collection.

B. Royer  
1234-W. 41st St.,  
Los Angeles 37, Calif.

#### **South Bay Lapidary Society Show**

The South Bay Lapidary Society will hold their Fourth Annual Show on Sept. 19th and 20th, 1953, at Clark Stadium, 861 Valley Drive, Hermosa Beach, Calif. Hours open—Sat. Noon to 10 P. M. and Sunday 10 A. M. to 6 P. M. Turn South off Pier Avenue—and Valley Drive runs right along the West side of the railroad tracks.

Exhibition includes everything of interest to the rock collector from rocks as picked up in the field to the cut and polished stones and jewelry pieces. Outstanding specimens of minerals, woods, etc. Members will be with their exhibits to answer questions and explain working methods. This will be another fine show as this Society is noted for its interesting shows. Admission free.

DeWitte Hagar  
Past President and Corres. Sec'y.  
1117 23rd St.  
Manhattan Beach, Calif.

#### **Glendale Lapidary & Gem Society**

(Glendale, Calif.)

First of all our most sincere thanks for your generous help in announcing our great May 16, 17 Gem Festival. We certainly appreciate the kind cooperation of ROCKS AND MINERALS.

Perhaps a few short lines about the attendance of our Gem Festival might be of interest:

The May 16, 17, 1953 Gem Festival at the great Ball Room of the Glendale (Calif.) Civic Auditorium was an outstanding success for the Glendale Lapidary and Gem Society. Members of 44 Societies registered (from so far away as Oregon) and 23 dealers were present. Over 9,000 persons visited the 2 day event, and made the Glendale Gem Festival the largest single Society Show of this year.

The new Society meeting place at 400 North Central Ave., Glendale (Calif.) proves very popular, and guests are always welcome. (Meetings are every fourth Monday at 7:30 P. M.)

Field trips this year were to the Boron Dry Lake near Mojave (Calif.) (for black petrified wood), to the Nuevo (Calif.) Silica Mine for star quartz and black tourmaline specimens, and to Costa Mesa (Calif.) for 40,000 year old fossil shells several sharks teeth and a large fossil whalebone were found also.

Walter Kohn (Publicity)  
2241 Cambridge St.,  
Los Angeles 6, Calif.

#### **Mineralogical Society of Southern California, Inc.**

Mr. Warren of Ultra-Violet, Inc., South Pasadena, Calif., was guest speaker at the April meeting of the Mineralogical Society of Southern California. While showing a number of very fine specimens under the Ultra-Violet light, Mr. Warren explained the principles of fluorescence and demonstrated the use of both the long and short wave lights.

A field trip was scheduled to Winchester, Calif., to collect andalusite crystals.

#### **MAY MEETING**

Stan Hill was speaker at the May meeting of the Mineralogical Society of Southern California. His topic "Beginning of Mineralogy in America", proved to be both interesting and educational.

Mrs. Guilford Dudley  
Publicity Chairman  
260 Alpine St.  
Pasadena, Calif.

#### **Fine Covers!**

Editor R & M:

Your new covers are fine!

Henry A. Bonnefoi  
907 Manitow St.  
Manitowoc, Wisc.

June 22, 1953

## Publications Recently Received

### HILLS—Outlines of Structural Geology.

By E. Sherbon Hills, Professor of Geology and Mineralogy, University of Melbourne. 3rd edition, 1953, 182 pages, 107 figures, 4 pls., 5x7½, cloth .....\$3.00.  
Published by John Wiley and Sons, Inc., 440 Fourth Ave., New York 16, N. Y.

The purpose of this book is to present a brief, yet reasonably complete and well documented summary of structural geology, with special reference to those aspects of the subject with which the field geologist should be acquainted. The nomenclature of certain sections of structural geology is at present in an unsatisfactory condition, and the author has given as full a synonymy as appeared to be necessary for the guidance of students in wider reading, which, it is hoped, the bibliographic reference will facilitate.

The author is professor of geology and mineralogy in the University of Melbourne (Australia) and so much of the text and illustrations deal with Australian geology.

**CONTENTS** — Non-Diastrophic structures. Rock deformation: mechanical principles. Major crustal structures. Folds. Faults. Structures of igneous rocks. Petrofabric analysis. Index of authors—Subject index.

### ARKELL-TOMKEIEFF—English Rock Terms.

By W. J. Arkell, Fellow of Trinity College, Cambridge, England, and S. I. Tomkeieff, Reader in Mineralogy, King's College, University of Durham, Newcastle upon Tyne, England. July 1953, 139 pages, 5x7½, Cloth .....\$4.25  
Published by Oxford University Press, 114 5th Ave., New York 11, N. Y.

This book is a glossary of rock names. The terms included are those used by miners and quarrymen in different parts of the British Isles in the daily exercise of their craft. Some are used generally throughout a particular craft, others are confined to certain localities and form integral parts of the appropriate dialects. All of them are native British products, uncontaminated by the Greek and Latin roots so common in scientific nomenclature. These vernacular rock names are alive and genial. Words like clunch, tharf, doab, sloom, and warp are most expressive and there is an undercurrent of humour in hen-stones, tumbler, soapy blaes, and thil-whin.

Although this book deals entirely with rock terms used in the British Isles, many of the terms are familiar to American ears such as basalt, chert, granite, etc. — others are new to us such as cocks and hens (a bed of

gypsum and marl), devil's dough (a hard grey-white siliceous rock), holystone (limestone full of holes), etc.

### REMINGTON - FRANCIS—The Composition and Assaying of Minerals.

By John Stewart-Remington and Dr. Wilfrid Francis. 1953, 127 pages, 1 plate, 5¾x8¾. Cloth ..... \$5.50.  
Published by the Philosophical Library, Inc., 15 E. 40th Street, New York 16, N. Y.

This book relates primarily to the chemical composition of minerals, with the object of providing a handy guide to their qualitative and quantitative examination which is suitable for use by mineralogists, metallurgists, geologists, chemists in mine laboratories and students in schools, technical colleges and universities.

**CONTENTS**—Part 1: Qualitative Examination—Identification of Bases and Acids. Part 2: Metallic Minerals—Properties and Methods of Assay. Part 3: Typical Assays of Ores. Part 4: Non-Metallic Minerals—Silica and Silicates. Part 5: General Chemical and Mathematical Data.

### PEARL—Colorado Gem Trails.

By Richard M. Pearl. Department of Geology, Colorado College, Colorado Springs, Colo., 2nd. Edition, 1953, 125 pages, 2 plates, 8 sketch maps, 5½x8¼. Paper bound ..... \$2.25.  
Published by the Mineral Book Company, Box 183, Colorado Springs, Colo.

It is a pleasure to announce that this popular book is again available to collectors and we can review it in no better way than to quote extracts from Professor Pearl's letter of March 31, 1953:

"I want to advise you that "Colorado Gem Trails" is being issued again in a revised edition, this time by the Mineral Book Company, Box 183, Colorado Springs, Colorado.

"The price will now be reduced to \$2.25 because a stiff paper cover will be used. A new sketch map of the Ruby Mountain locality has been provided, and revised mileage logs for the Mount Antero and Calumet localities. Other changes have been made in both text and illustrations to bring the most important matters up to date.

"Retained are the popular features such as the sketch maps by my wife, Mignon W. Pearl, data on collecting conditions, land ownership, gem and mineral societies welcoming visitors, gem and mineral collections open to the public, official maps, history of gem pro-

duction, and references for study and research. There are photographs of Mount Antero and Mount Sneffels localities."

All collectors planning to visit Colorado—get a copy of "Colorado Gem Trails" before leaving home. It is one book heartily recommended by ROCKS AND MINERALS.

#### **DURAND—Judging Gems.**

By Paul Durand, 1952, 58 pages, 1 photo, 8 drawings, 5 $\frac{3}{4}$  x 8 $\frac{3}{4}$ , paper bound \$2.00  
Published by Technicraft Publishers, 3207 Winnie Drive, Hollywood 28, Calif.

If you enjoy the beauty of precious stones, your enjoyment will be increased by knowing more about them. If, like most people, you at one time or another buy jewelry, knowing something about the value of precious stones is a necessity as well as a pleasure.

**CONTENTS** — Introduction. Learning To Judge Gems. How To Examine Gems. Gem Proportions. How To Look At Gems. The Interior Of A Gem. Two Useful Tests. Gem Fakes. Synthetics. Gem Prices. Some Fallacies. Miscellaneous Information. Some Unusual Optical Characteristics. Charts. Gem Families. Conclusion.

#### **Smithsonian Institution Reports**

The Smithsonian Institution, Washington 25, D.C., has issued the following reports:

Geology of the San Jon Site, Eastern Mexico, by Sheldon Judson, 70 pp., 5 pls., 22 text figures. Issued as Vol. 121, No. 1, March 5, 1953.

Studies of Arctic Foraminifera, by Alfred R. Loeblich, Jr., and Helen Tappan. 150 pp., 24 pls., 1 text figure. Issued as Vol. 121, No. 7, April 2, 1953.

A New Devonian Crinoid from Western Maryland, by Arthur L. Bowsher, 8 pp., 1 pl., 1 figure. Issued as Vol. 121, No. 9, April 16, 1953.

#### **Ontario Reports**

The Department of Mines, Toronto, Ont., Canada, has issued the following reports:

Geology of Baldwin Township, by Jas. E. Thomson, 33 pp., 12 illus., 1 colored geological map (in pocket). Issued as Vol. LXI, Part 4, 1952.

Geology of McCool Township, by J. Satterly, 30 pps., 9 illus., 1 colored map (in pocket). Issued as Vol. LXI, Part 5, 1952.

#### **French Equatorial Africa Report**

Notice Explicative, by Maurice Nickles with the collaboration of de V. Hourcq., 109 pp. with 3 large folded geological maps (in color) of French Cameroons and French Equatorial Africa. Printed in French. Issued by the Director of Mines and Geology, Brazzaville, French Equatorial Africa.

#### **Midwest Shop Guide to Fossils**

The Midwest Shop, 9709 S. Prospect, Chicago 43, Illinois, has issued a 3-page Fossil Fern Guide with 2 large maps for the famous fossil localities in Grundy and Will Counties of Northeastern Illinois known as the Mazon Creek areas. A letter, dated May 6, 1953, from R. E. Riecker, Gen. Mgr., of Midwest Shop, reads:

"Enclosed is our Fossil Fern Guide which we will be advertising in the May-June R&M. This Guide will lead anyone to very productive spots and is guaranteed to produce fine specimens. The information given out in this Guide, although small in quantity, is great in value and cannot be duplicated. Only reference to Mazon Creek region appeared in books, no information was ever available to guide a collector to good collecting spots.

"Enclosed is also a copy of our catalog (4 pages) which will be replaced soon with a much larger one. We have in preparation a micromount catalog with over 75 specimens listed."

#### **Made Many Exchanges!**

Editor R & M:

Am sending in an order to cover my renewal of R&M for another year.

Each issue of your magazine is read and re-read and has been the source of information that has brought about my acquaintance with over sixty collectors, one as far away as Southern Rhodesia, Africa.

I have exchanged specimens with all of these and much credit can be given to your splendid magazine for bringing about the many mineral exchanges and friendly letters during the last eighteen months.

Am anxiously waiting for the next issue. Wish it came out every month.

Vernon D. Richmond  
1018 Mott Ave.,  
Toledo 5, Ohio

May 29, 1953

#### **Has Many New Mineral Friends!**

Editor R & M:

Your magazine is very educational and instructional. Through the length of its pages I have met many new mineral friends and have broadened my mineral collection. Thanks to a great editor.

Charles R. Franz  
4512 Liberty Avenue  
North Bergen, N. J.

June 15, 1953

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